THE

Horticulturist,

AND

JOURNAL OF RURAL ART AND RURAL TASTE.

The New-York Park.

THE leading topic of town gossip and newspaper paragraphs just now, in New-York, is the new park proposed by MAYOR KINGSLAND. Deluded New-York has, until lately, contented itself with the little door-yards of space—mere grass plats of verdure, which form the squares of the city, in the mistaken idea that they are parks. The fourth city in the world, (with a growth that will soon make it the second,) the commercial metropolis of a continent spacious enough to border both oceans, has not hitherto been able to afford sufficient land to give its citizens, (the majority of whom live there the whole year round,) any breathing space for pure air, any recreation ground for healthful exercise, any pleasant roads for riding or driving, or any enjoyment of that lovely and refreshing natural beauty from which they have, in leaving the country, reluctantly expatriated themselves for so many years—perhaps for ever. Some few thousands, more fortunate than the rest, are able to escape for a couple of months, into the country, to find repose for body and soul, in its leafy groves and pleasant pastures, or to inhale new life on the refreshing sea-shore. But in the mean time the city is always full. Its steady population of 500,000 souls, is always there; always on the increase. Every ship brings a live cargo from over-peopled Europe, to fill up its crowded lodging-houses; every steamer brings hundreds of strangers to fill its thronged thoroughfares. Crowded hotels, crowded streets, hot summers, business pursued till it becomes a game of excitement, pleasure followed till its votaries are exhausted, where is the quiet reverse side of this picture of town life, intensified almost to distraction?

MAYOR KINGSLAND spreads it out to the vision of the dwellers in this arid desert of business and dissipation—a green oasis for the refreshment of the city's soul and body. He tells the citizens of that feverish metropolis, as every intelligent man will tell them who knows the cities of the old world, that New-York, and American cities generally, are voluntarily and ignorantly living in a state of complete forgetfulnes of

nature, and her innocent recreations. That because it is needful in civilized life for men to live in cities,—yes, and unfortunately too, for children to be born and educated without a daily sight of the blessed horizon,—it is not, therefore, needful for them to be so miserly as to live utterly divorced from all pleasant and healthful intercourse with gardens and green fields. He informs them that cool umbrageous groves have not forsworn themselves within town limits, and that half a million of people have a *right* to ask for the "greatest happiness" of parks and pleasure grounds, as well as for paving stones and gas lights.

Now that public opinion has fairly settled that a park is necessary, the parsimonious declare that the plot of 160 acres proposed by MAYOR KINGSLAND is extravagantly large. Short sighted economists! If the future growth of the city were confined to the boundaries their narrow vision would fix, it would soon cease to be the commercial emporium of the country. If they were the purveyors of the young giant, he would soon present the sorry spectacle of a robust youth magnificently developed, but whose extremities had outgrown every garment that they had provided to cover his nakedness.

These timid tax-payers, and men nervous in their private pockets of the municipal expenditures, should take a lesson from some of their number to whose admirable foresight we owe the unity of materials displayed in the New-York City-Hall. Every one familiar with New-York, has wondered or smiled at the apparent perversity of taste which gave us a building—in the most conspicuous part of the city, and devoted to the highest municipal uses, three sides of which are pure white marble, and the fourth, of coarse, brown stone. But few of those who see that incongruity, know that it was dictated by the narrow sighted frugality of the common council who were its building committee, and who determined that it would be useless to waste marble on the rear of the City-Hall, "*since that side would only be seen by persons living in the suburbs!*"

Thanking MAYOR KINGSLAND most heartily for his proposed new park, the only objection we make to it is that it is *too small*. One hundred and sixty acres of park for a city that will soon contain three-quarters of a million of people? It is only a child's play-ground. Why London has over six thousand acres either within its own limits, or in the accessible suburbs, open to the enjoyment of its population—and six thousand acres composed too, either of the grandest and most lovely park scenery, like Kensington and Richmond, or of luxuriant gardens, filled with rare plants, hot-houses and hardy shrubs and trees, like the National Garden at Kew. Paris has its Garden of the Tuilleries, whose alleys are lined with orange trees two hundred years old, whose parterres are gay with the brightest flowers, whose cool groves of horse-chestnuts, stretching out to the Elysian Fields, are in the very midst of the city. Yes, and on its out-skirts are Versailles, (three thousand acres of imperial groves and gardens there also,) and Fontainbleau, and St. Cloud, with all the rural, scenic, and palatial beauty that the opulence of the most profuse of French monarchs could create, all open to the *people* of Paris. Vienna has its great *Prater*, to make which, would swallow up most of the "unimproved" part of New-York city. Munich has a superb pleasure-

ground of five hundred acres, which makes the Arcadia of her citizens. Even the smaller towns are provided with public grounds to an extent that would beggar the imagination of our short-sighted economists who would deny "a greenery" to New-York; Frankfort, for example, is skirted by the most beautiful gardens, formed upon the platform which made the old ramparts of the city—gardens filled with the loveliest plants and shrubs, tastefully grouped along walks over *two miles* in extent.

Looking at the present government of the city as about to provide, in the Peoples' Park, a breathing zone, and healthful place for exercise for a city of half a million of souls, we trust they will not be content with the limited number of acres already proposed. *Five hundred acres* is the smallest area that should be reserved for the future wants of such a city, *now*, while it may be obtained. Five hundred acres may be selected between 39th-street and the Harlem river, including a varied surface of land, a good deal of which is yet waste area, so that the whole may be purchased at something like a million of dollars. In that area there would be space enough to have broad reaches of park and pleasure-grounds, with a real feeling of the breadth and beauty of green fields, the perfume and freshness of nature. In its midst would be located the great distributing reservoirs of the Croton aqueduct, formed into lovely lakes of limpid water, covering many acres, and heightening the charm of the sylvan accessories by the finest natural contrast. In such a park, the citizens who would take excursions in carriages, or on horseback, could have the substantial delights of country roads and country scenery, and forget for a time the rattle of the pavements and the glare of brick walls. Pedestrians would find quiet and secluded walks when they wished to be solitary, and broad alleys filled with thousands of happy faces, when they would be gay. The thoughtful denizen of the town would go out there in the morning to hold converse with the whispering trees, and the wearied tradesmen in the evening, to enjoy an hour of happiness by mingling in the open space with "all the world."

The many beauties and utilities which would gradually grow out of a great park like this, in a great city like New-York, suggest themselves immediately and forcibly. Where would be found so fitting a position for noble works of art, the statues, monuments, and buildings commemorative at once of the great men of the nation, of the history of the age and country, and the genius of our highest artists? In the broad area of such a verdant zone would gradually grow up, as the wealth of the city increases, winter gardens of glass, like the great Crystal Palace, where the whole people could luxuriate in groves of the palms and spice trees of the tropics, at the same moment that sleighing parties glided swiftly and noiselessly over the snow covered surface of the country-like avenues of the wintry park without. Zoological Gardens, like those of London and Paris, would gradually be formed, by private subscription or public funds, where thousands of old and young would find daily pleasure in studying natural history, illustrated by all the wildest and strangest animals of the globe, almost as much at home in their paddocks and jungles, as if in their native forests; and Horticultural and Industrial Societies would hold their annual shows there, and great expositions of the arts would take place in spacious buildings within the

park, far more fittingly than in the noise and din of the crowded streets of the city.

We have said nothing of the *social* influence of such a great park in New-York. But this is really the most interesting phase of the whole matter. It is a fact not a little remarkable, that ultra democratic as are the political tendencies of America, its most intelligent social tendencies are almost wholly in a contrary direction. And among the topics discussed by the advocates and opponents of the New Park, none seem so poorly understood as the social aspect of the thing. It is, indeed, both curious and amusing to see the stand taken on the one hand, by the million, that the park is made for the "upper ten," who ride in fine carriages, and on the other hand, by the wealthy and refined, that a park in this country will be "usurped by rowdies and low people." Shame upon our republican compatriots who so little understand the elevating influences of the beautiful in nature and art, when enjoyed in common by thousands and hundreds of thousands of all classes, without distinction! They can never have seen, how all over France and Germany, the whole population of the cities pass their afternoons and evenings together, in the beautiful public parks and gardens. How they enjoy together the same music, breathe the same atmosphere of art, enjoy the same scenery, and grow into social freedom by the very influences of easy intercourse, space and beauty, that surround them. In Germany, especially, they have never seen how the highest and the lowest partake alike of the common enjoyment—the prince seated beneath the trees on a rush bottomed chair, before a little wooden table, supping his coffee or his ice, with the same freedom from state and pretension as the simplest subject. Drawing-room conventionalities are too narrow for a mile or two of spacious garden landscape, and one can be happy with ten thousand in the social freedom of a community of genial influences, without the unutterable pang of not having been *introduced* to the company present.

These social doubters who thus intrench themselves in the sole citadel of *exclusiveness*, in republican America, mistake our people and their destiny. If we would but have listened to them, our magnificent river and lake steamers, those real palaces of the million, would have had no velvet couches, no splendid mirrors, no luxurious carpets. Such costly and rare appliances of civilization, they would have told us, could only be rightly used by the privileged families of wealth, and would be trampled upon and utterly ruined by the democracy of the country, who travel 100 miles for half a dollar. And yet these, our floating palaces and our monster hotels, with their purple and fine linen, are they not respected by the majority who use them, as truly as other palaces by their rightful sovereigns? Alas, for the faithlessness of the few, who possess, regarding the capacity for culture of the many, who are wanting. Even upon the lower platform of liberty and education that the masses stand in Europe, we see the elevating influences of a wide popular enjoyment of galleries of art, public libraries, parks and gardens, which have raised the people in *social* civilization and social culture to a far higher level than we have yet attained in republican America. And yet this broad ground of popular refinement *must* be taken in republican America, for it belongs of right more truly here, than elsewhere. It is republican in its very idea and tendency. It takes up popular education

where the common school and ballot-box leave it, and raises up the working-man to the same level of enjoyment with the man of leisure and accomplishment. The higher social and artistic elements of every man's nature lie dormant within him, and every laborer is a possible gentleman, not by the possession of money or fine clothes—but through the refining influence of intellectual and moral culture. Open wide, therefore, the doors of your libraries and picture galleries, all ye true republicans! Build halls where knowledge shall be freely diffused among men, and not shut up within the narrow walls of narrower institutions. Plant spacious parks in your cities, and unloose their gates as wide as the gates of morning to the whole people. As there are no dark places at noon day, so education and culture—the true sunshine of the soul—will banish the plague-spots of democracy; and the dread of the ignorant exclusive who has no faith in the refinement of a republic, will stand abashed in the next century, before a whole people whose system of voluntary education embraces (combined with perfect individual freedom) not only common schools of rudimentary knowledge, but common enjoyments for all classes, in the higher realms of art, letters, science, social recreations and enjoyments. Were our legislators but wise enough to understand, to-day, the destinies of the New World, the gentility of Sir PHILIP SIDNEY, made universal, would be not half so much a miracle fifty years hence in America, as the idea of a whole nation of laboring-men reading and writing, was, in his day, in England.

THE BUTTONWOOD TREE DISEASE.

BY A. BAYLIES, TAUNTON, MASS.

DEAR SIR—"A Constant Reader" in the July No., inquires for a little light on the subject of the Buttonwood disease. He shall have that light, although he may consider it by far, smaller than a rush-light.

I have long been acquainted with the Buttonwood, and it was with me a favorite tree. I never saw a diseased one in Massachusetts, before May 21st, 1842, and I never have seen a healthy one in Massachusetts since that time. Now for a solution of this mystery, if mystery it may be called. May 20th, 1842, we had a very cold, rainy day, with much sleet, with the wind at north-east and north, which lasted nearly all day, and at sunset the wind hauled round to the north-west, with a clear sky, and at 9 o'clock in the evening it was very cold, with the numerous stars shining and twinkling as we often see them in December. This state of the weather lasted through the night, and the morning presented appearances which I shall never forget—the earth was frozen hard enough to bear up a man, and the ice was as thick as window glass, and sad to relate, but the truth must come out, every leaf and Buttonwood bud through the length and breadth of Massachusetts was "as dead as a herring." Now what could the poor Buttonwood tree do in this dilemma? Its leaves and its buds were all gone, but it had life and sap enough to form another crop as large as the first, but how to begin this process was the question. Nature is never idle, and perhaps she was not altogether prepared for this contingency, and so I should infer from her tardiness in repairing the injury of the 21st of May.

But finally, about the first of July following, young shoots and leaves began to appear

—so that the friends of this doomed tree began to hope that all was not lost—and that we should finally see the Buttonwood restored. But that hope is likely to prove fallacious—for new wood, that has only about sixty days to mature in, can hardly get strength and vigor to stand our winters. And consequently, the spring of every succeeding year since that eventful time, finds the Buttonwood without a living bud to start from.

A friend of mine, who is quite a traveler, informed me the other day that the only Buttonwood trees that he had seen, that had not suffered as ours have, were some near the falls of Niagara, and they were in all their glory—having been protected by that eternal spray that always fills the air in their immediate vicinity. Yours respectfully.

ALFRED BAYLIES.

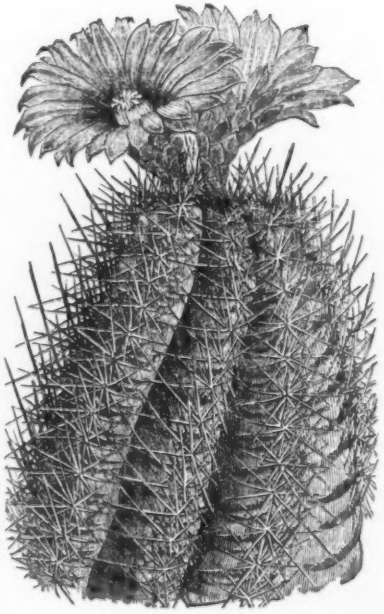
Taunton, July 8, 1851.

[Our correspondent's theory would be a good one if its application could be confined to Massachusetts. But three years before the fatal day he records, which began the Buttonwood blight in his state, we saw trees entirely killed by it, as far south as Maryland, where no such frost had taken place. From the south, the disease has gradually spread to the north, and we have watched young trees, that stood last year in perfect luxuriance, by the side of diseased old trees, gradually fall victims to the same malady. Wherever the Buttonwood stands in moist ground, there it seems best able to withstand the disease—while in dry, sandy soils, it is a pretty sure victim to it. The cause, we are confident, lies deeper than any matter of climate—and is worthy of the careful investigation of vegetable physiologists. ED.]

NEW MEXICAN CACTUS.

FROM GARD. MAGAZINE OF BOTANY.

ECHINOCACTUS RHODOPHTHALMUS,—*Hooker*.—Red eyed Echinocactus, (*Bot. Mag. t.* 4486)—Nat. Ord., Cactaceæ § Cactæ.—A green-house succulent plant of sub-columnar form, six inches (or more) high, longitudinally divided into eight or nine deep furrows, with obtuse ridges, formed by transverse lines into lobes or tubercles, each tubercle bearing a cluster of about nine strong, straight, spreading spines, about an inch in length, the central one longest, and standing forward. The flowers—from the top of the plant—are large, handsome, the petals linear-spathulate, rose colored, a dark red stain at the base forming a radiating circle around the staminal column.—From Mexico: San Luis Potosi; introduced about 1847, by F. Stains, Esq. Flowers in summer. Royal Botanic Gardens, Kew.



POMOLOGICAL MEMORANDA.

BY L. F. ALLEN, BLACK ROCK, N. Y.

THE BROWN BEURRE PEAR.—Why it is that this delicious *old* pear is so little noticed of late, when so many new and as yet untried (thoroughly,) varieties are receiving the praises of our pomologists, is to me strange. I have cultivated the Brown Beurre for many years. It needs good culture, I admit; and what don't, if you intend to get its *best* productions?

Its qualities are these: It is a good grower—irregular and twisting, to be sure—but that matters little; it is, in the main, a graceful tree.

It is very hardy, and ripens well its wood.

It is a great bearer, and matures its fruit in October, keeping well into November, and sometimes into December.

Its size is large medium; its flavor is vinous; and grown under the influence of a full sun, most sugary and delicious—indeed I know of nothing more piquant and yet delicate, in the pear family; and with its rich, golden russety hue, the fruit, as a mere show, is a rich ornament to the table.

Grown either on the pear or quince stock, and planted in a rich and dry *stiff* soil—and not much matter how stiff either—one who wants the *very best* October pear can do no better than to cultivate the Brown Beurre as a prominent variety. [We entirely agree with Mr. ALLEN as to the merits of the Brown Beurre. But it has failed of late in all the old soils of the east, and its cultivation has therefore gradually declined. In a new soil, like that of western New-York, its fruit is of the finest quality—and any person who wishes to raise it further east, must restore the potash, lime and phosphate abstracted from the soil by long culture, before he can succeed well again. ED.]

THE NORTHERN SPY APPLE.—In writing about the culture of this excellent fruit, our pomologists say much of its requiring careful pruning and rich cultivation, but without telling the public *why* or how it requires such pruning and cultivation; thus confusing those who do not understand its habits, and creating doubts as to the expediency of growing it all. If those who set about informing the world would go into particulars, it would be better.

The fact is, the Northern Spy is a vigorous and *upright* grower, inclined to throw its wood closely together, like a currant bush. Indeed, the head of a Northern Spy tree, left to itself, looks more like an enormous currant bush than like an ordinary apple tree. But the branches are rather slender, and when in bearing incline to bend over outward with the weight of their fruit. The head must be thinned—and that severely. I have several hundred of them planted in my orchard. Their heads grew compactly together, contrary to my expectations, from what I had heard of them, and last year, for the first time—years after some of my other varieties of apple planted at the same time with them, for the Spy is tardy in arriving at a bearing state—they bore well. I saw the difficulty in the compact growth of the head, and the past spring I went through my trees, and with the saw and knife, gave them a thorough *cleaning out* of the central leading branches, giving an open, *wine-glass* shape to them, and in some cases more like an inverted umbrella. But the process was the *right* one. They are bearing finely; the apples already bending over the branches, and the vigorous young shoots taking a more lateral direction.

In describing fruits, our authors almost all fail in giving *the habits of the tree*, its mode of growth, best manner of pruning each particular variety to induce fruitfullness, &c.,

&c., which, if they would do, would confer a much greater benefit to their readers, than the loose and general remarks which are usually made in their descriptions.

Working the Earth around the roots of Trees.—In the last October number of your paper, I gave a word or two on mulching orchard trees. Those trees stood in a grass meadow which was mowed for hay—of course unploughed, and the mulching was substituted for the ploughing. As the trees, invigorated by the mulching, had made good growth, and fearing that the repetition of that process alone would not answer the purpose the present season—the mulch being removed early last fall, for fear it would harbor the mice about the roots, and thus destroy them, early in May I put to work the plough, with a pair of stout oxen, and a careful driver—the latter more particularly to keep the oxen from goring the trees. Setting the plough, with a good coulter to it, (to *cut* the sod instead of tearing it,) into the ground at six feet back from the tree, and as near within line of it as would lay the furrow against the trunk—say twelve to fifteen inches—I upset the sod six to eight inches deep, and gave four furrows on each side, eight in all, throwing out the plough at six feet beyond the tree—the same distance as it was let in.

The plan worked to my entire satisfaction. I measured young wood on many trees last Saturday, (21st of June,) which had made nine to eighteen inches already, and still growing vigorously, while the grass all over the meadow is large and heavy, thus giving the trees all the advantage of an *entire* ploughing to the field. The sods are not turned *flat;* but perhaps, at an average, two-thirds over, so that the rains and the air can penetrate the open earth, and reach the roots freely. This sod operates as a perfect mulch also—for what is better than a rich, heavy up-turned sod about a tree? The fruit, too, hangs well, and promises large growth.

You may possibly expect me to say a word of my trees planted a year ago, of which I also gave an account in October. Owing to the heavy snows of last winter the mice nibbled many of them, and quite destroyed eight or ten of the 1,200 planted. The land where they stand was all ploughed last fall, at an average of nine inches deep, and in April following sowed into spring wheat, oats and barley, and seeded into grass for meadow. Owing to its being in grain, and in consequence, subject to the depredations of mice while growing and harvesting, I dared not trust the mulching around the trees. Still they are growing remarkably well, many of them already having made a foot of wood up to this time.

Necessity of Thorough Draining for Fruits.—Having a small piece of stiff soil, about half an acre, (clay loam on a clay sub-soil,) near my farm-house, which lay in a *dishing* shape, and of course catching and holding the water flowing on to it from the contiguous grounds, and in a spot where I wanted fruit trees to stand, after thoroughly manuring and ploughing it, I planted it in apple, pear, plum and cherry trees, for house use, and laid it into grass. I didn't look at the condition of the land as I should have done, and paid no attention to draining it; yet I dug well around the trees every year, to promote their growth. Although well planted and tended, the trees did not grow *well*, and the English cherries all but one, several in number, died out, with the single exception of two, and they stood still, barely holding their own. The others made small growth, and bore a little fruit, but even that little in number was small in size. Suspecting the cause, I made two or three small open drains about a foot deep, across the piece, but it was *no go*. The trees refused to progress, and were becoming stunted and mossy.

Last fall I went thoroughly to work and opened ditches two and a half feet deep, three feet wide at the top, and one foot at bottom, thirty to forty feet apart, laying the ground into beds, and leading the water as it fell or stood upon the ground, entirely away. The

trees found it out as quick as I did, and they have now, the very first season after being relieved of that cold stagnant water in the soil, already made more growth than in the three last years before.

Trees of *any* kind—not *water* trees—must have a *dry and warm* soil to grow luxuriantly; and if the soil on which they are wanted to stand be cold, wet and clammy, *thorough* draining will warm it. I have orchard trees now standing, where the year before they were planted was a low swale, but dried by cutting a good ditch through it, and they are the thriftiest trees in the field. One cause no doubt is, that the swale soil is the richest, but before it was drained fruit trees would not grow in it; standing water was upon it for two-thirds of the year, and it yielded nothing but water grass and bushes. An expense of five or ten dollars in ditching has relieved the entire difficulty, and given the best possible soil for a hundred trees to luxuriate, and grow, and rejoice as laughingly as so many frolicking colts in a summer pasture, besides yielding as good crops as any of the adjoining upland. Ditch, *ditch*, DITCH, your cold and clammy soils for tree planting!

WILD OR NATURAL STOCKS FOR FRUIT TREES.—It is probably not for the interest of nurserymen to believe it, but I have no doubt whatever that *natural* stocks, *up as high as the branching point*, are the best for the finer fruits. Let the grafting or budding be done at that point, and I do believe the tree will live twice or thrice as long as if done near to the root. Look at the old orchards, even on poor soil in the old states, that were planted when grafting and budding was little practiced, or scarce known in our country, and see the enormous size and great age of some of the trees. Many of the trees, to be sure, were grafted, but it was done years after they were planted, and in the branches. The huge rings on many of them show that.

Take a common wilding from the nursery or a hedge row, cut it with your saw or knife, and see how much tougher and harder it is than the delicate wood of a *refined* fruit. See the one stand out through all vicissitudes, and grow and flourish, while the other withers, and blights, and cankers under all the care you may give it, unless it be now and then one of the hardiest constitution, which escapes and thrives. The notes of your thorough and capital correspondent, Mr. FRENCH, in the June Horticulturist, p. 257, are a practical commentary on the hardihood of natural stocks in surviving the harsh treatment they receive at the hands of bunglers—and I have seen thousands like it—sufficiently so to lead fruit growers into the trial, at least, of wildings for their standards—*and for pears more especially*.

A fact in point I will mention. Some time since I purchased of a nurseryman a lot of apple trees—in the lump—standing on a certain quarter of his grounds which he wanted to clear away. Many of the best worked trees had been taken out and sold. Of the remainder probably half were worked at the root and the remainder natural stocks, worked originally, but failed and grew up wild and scrubby. As the worked trees were not of the kind I wanted, I took them up indiscriminately, intending to graft them over, with the natural stocks, into kinds that I wished. When they were removed, I found the roots of the wildings to be on an average full twice as stout and numerous as the worked stocks, although the *roots* of these last were wildings. In a few days I cut them *all* off branch high and grafted them. I found the wildings much harder in the wood—for I sawed off and trimmed every one myself—than the others, and when planted, some in the orchard, and others in nursery rows for the purpose of making more growth before planting out, the wild stocks budded out thicker and stonger than the worked stocks, and made a better growth. I should be happy to hear the views of experienced men on this subject.

Black Rock, N. Y., June 24, 1851. LEWIS F. ALLEN.

THE LEAF BLIGHT OF THE PEAR

BY JOHN TOWNLEY, MOUNDVILLE, WIS.

On reading the communication on leaf-blight, by Mr. Hooker, I was reminded of a paper on a similar subject by the late Andrew Knight. On referring to it, I find Mr. Knight's observations so nearly coincide with those recorded by Mr. Hooker, that it is probable the diseases observed by them are identical. The attack of a parasitic fungus (and as will probably hereafter be found of the same species,) seems to have been the immediate cause of disease in both cases. As so little seems to have been written hitherto by horticulturists on this important subject, I send you extracts from Mr. Knight's paper, considering that a statement of the facts observed by him, and of the experiments he made with a view to determine how the disease is communicated from one plant to another, and whether by any expedient it could be prevented or cured, might possibly prove interesting to Mr. Hooker and to the growers of pears generally. I may mention that Mr. Knight's paper was read before the Horticultural Society in 1815, and that the fungus which attacked his pear trees was known to botanists at that time by the name of *Lycoperdon cancellatum*.

"I observed, about seven years ago, a disease upon a few of the leaves of one of the pear trees in my garden at Downton. Bright yellow spots, from which a small quantity of liquid exuded, appeared upon the upper surface of the leaves in June; and subsequently, several conic processes, about one-third of an inch in length, were protruded from the same parts, but from the opposite surface of each leaf; and from these a large quantity of brown impalpable powder, consisting of very minute globular bodies, was discharged in August and September. These minute globular bodies I concluded to be seeds of a species of fungus; but as a few only of the leaves of my trees were affected, and no very injurious effects were visible, I did not take any measures to prevent their dispersion over my garden.

"I did not, however, long remain ignorant of the formidable nature of my new enemy; for within two years, every pear tree in my garden became in some degree diseased. The leaves only, at first, appeared to be injured; but the disease soon extended itself to the annual branches in many protuberant yellow spots, beneath which the bark was found to have acquired a bright yellow color; and as far as this color extended, the bark and the wood beneath it invariably perished, either in the same or following season, leaving wounds similar to those inflicted by canker, but less curable. The fruit also became diseased and worthless, and almost all the young shoots, when once attacked, perished in the following winter. These effects were not confined to my garden, but extended to the pear trees in an orchard which was two hundred yards distant, and I cannot entertain a doubt, but that the disease was communicated to these by seeds which had been conveyed by the prevalent west winds. I endeavored during the summer of 1813 and 1814, to check its progress in my garden, by picking off every diseased leaf; but I found all my efforts nearly abortive, and I have been obliged to destroy the greater part of my pear trees: those which remain have become annually more diseased, and I fear never can be ultimately preserved, unless a remedy for the disease can be discovered."

Mr. Knight tried the effect of sprinkling the leaves with quick-lime and fresh wood ashes, but he had not an opportunity of observing the ultimate effect of these substances, for almost all the leaves fell off prematurely.

"Those of a single small standard pear-tree, on which flour of sulphur had been

sprinkled, remained alive till late in the autumn; and upon these I did not observe the sulphur to operate in any degree, till the period at which the conic processes above mentioned would have appeared; but the yellow spots then became black, and perished, without affording seeds; whence I have reason to hope, that flour of sulphur will prevent, in some measure at least, the rapid extension of this disease.

"As the existence of this species of fungus appeared, three years ago, to be confined to my garden and a few pear trees in its vicinity, and to the hawthorn in an adjoining hedge (for it attacks the hawthorn as well as the pear tree,) I then thought it would be practicable to ascertain decisively the means by which it transfers itself from one tree to another: and this appeared to me to be an important object, because the habits of the *Lycoperdon cancellatum*, and of the fungus which forms the rust or mildew of wheat, are, in many respects, very similar.

"I had so often tried, without success, to transfer the mildew of wheat, and other plants, from a diseased to a healthy subject, in the same season, that I had not any expectation of succeeding in an attempt of that kind; but I thought it not improbable that I might succeed in communicating this disease to seedling plants of the pear tree, having long ago satisfied myself that the species of fungus, which forms the mildew of wheat, always rises from the root of the plant.

"I have many years been in the habit of raising annually pear trees from seeds, with the hope and expectation of obtaining new and hardy varieties; and as the means I employ to obtain seeds well calculated for my purpose, necessarily cost me a good deal of time and labor, I have always planted them in pots, and in the kind of mould which long experience has pointed out to me as the best. This I have always obtained, at the period of sowing the seeds, in January or February, from the banks of a river at some distance from my garden; and in this mould my seedling pear trees always sprang up, and remained during the first season perfectly free from disease. In the spring of 1813, a portion of this mould, which I did not want, was intentionally placed very near some hawthorns and pear trees upon which the Lycoperdon cancellatum abounded, where it remained till the spring of 1814, when it was put into pots, and new seeds deposited in it. These sprang up as usual, and remained in perfect health till the end of May or beginning of June; when the fungus presented itself upon almost all the first true leaves of the plants, which leaves had composed the plumules of the seeds.

"That the fungus in this case rose from the ground, will, I think, scarcely be questioned; but it is necessary to state, that the seeds were all taken from trees which were not quite free from disease, and that I saw in the last spring some diseased plants, in a case where every precaution, except that of using new pots, (which had been my previous custom,) had been taken; and therefore whilst so little is known respecting the habits of plants of this tribe, the preceding facts are not sufficient to support a decision, that the source of the disease might not have been in the seeds themselves. For as the fructification is probably every thing which is seen of this, and many other parasitical fungus plants, the plant may extend in minute filaments through the whole body of the tree which supports it; and it appears in this view of the subject possible, that these slender filaments may extend into the seeds. The following circumstances, however, militate strongly in opposition to this conclusion. A great number of seedling pear trees, which were very much diseased, were removed in the last spring, from my garden to a distant situation, after having had their roots and stems carefully and repeatedly washed and brushed, so as to remove from them every particle of the mould in which they had previously grown; and upon these not a vestige of disease has since appeared. Grafts also, which were

formed of parts of diseased trees, have in all cases produced perfectly healthy foliage, even when inserted into the branches of other diseased trees; which circumstance I think interesting, because it tends to point out a further apparent similarity in the habits of this species of fungus, and that which forms the mildew of wheat, which ceases to vegetate as soon as the straw is severed from its roots, though that remains for some time green and living: whence arises the advantage of cutting mildewed crops of wheat in an immature state. Further experience can, however, alone decide these points: and the only inference I wish to draw from the facts I have stated is, that the Lycoperdon cancellatum is capable under certain circumstances, of being transferred from one plant to another in its vicinity by means of its seeds."

I had intended to have added a few remarks on the conditions required for the growth and increase of parasitic fungi, together with suggestions for an extended and systematic inquiry with a view to determine whether any means are known, or can be devised, to prevent an attack, or diminish the power of these parasites, but as I find they would make this article much too long, I reserve them for a separate communication.

Respectfully yours, JOHN TOWNLEY.

Moundville, Marquette county, Wisconsin.

NOTES ON THE STRAWBERRY.

BY R. G. PARDEE, PALMYRA, N. Y.

SOME distant readers of the Horticulturist have desired me to send to the Editor a sketch of my observations and experience with the strawberry the current season. This I will cheerfully do, if I am permitted to add, that I do not wish them to be considered as conclusive in any case, but rather as only suggestive to others. I am not aware that I have any partialities or prejudices for any particular kinds, and I am quite sure I have never received a dime for strawberries from any one. I cultivate them for my own satisfaction, to which I may add the luxury of giving my family and kind neighbors more acceptable fruit than money will often purchase, and assisting them in determining the best varieties for us to cultivate.

This season has been with us an exceedingly favorable one for the strawberry. The constant succession of plentiful showers has been so grateful to this thirsty plant, that it has returned to us larger and more abundant fruit than usual.

Hovey's Seedling has never borne so satisfactorily on my grounds as during the present season, and the fruit has been so large that we have gathered quarts at a time measuring from four to five inches, and the flavor has been good. While I can say thus much in favor of this standard variety, I am also happy to say that in productiveness and flavor *Burr's New Pine* has decidedly and largely surpassed it, and is only slightly inferior to it in the average size, for we have also gathered quarts of the New Pine measuring from three and three-fourths to four and three-eights inches just below the stem. I allowed my New Pine and a portion of the Hovey's, side by side, to strike their runners and cover the ground, and it is worthy of remark that I was unable to find a *single plant* of the New Pine, even of those runners which struck as late last fall as November, which has not borne liberally this season, and I have carefully examined hundreds with reference to this point; no other variety has as yet done this on my grounds.

The *Lord Spencer* (?) has not this season quite met my expectations, either in respect

to size or productiveness, and yet its flavor as a table berry, when fully ripe, is almost unequalled; but in many respects this season, it has more resembled the Early Scarlet than my other varieties.

The *Black Prince* has borne largely with me, and a large portion of the fruit has been very large, say three and three-fourths to four and a half inches, and is a very showy fruit, but no previous season have we noticed it so deficient in high flavor. The plants which had extraordinary cultivation, and were of such remarkable size, were among those the most deficient in flavor.

The *Alice Maud* has also borne well, and the fruit has been unusually large, but this also has failed to be of high flavor.

Jenny's Seedling has not quite met our expectations this season in productiveness, but the fruit has been very large and good, and may redeem its character with us another season.

The *Roseberry* is of fine flavor, and has borne well, though of medium size. I am quite pleased with Ellwanger & Barry's new seedlings, the *Genesee*, *Monroe*, and *Climax Scarlet*. The plants are very vigorous, and promise a large supply of fine flavored fruit. We shall give them a good chance for another season. Nearly or quite the same may be said of *Richardson's Early*, *Late*, *and Cambridge*, togther with the *Boston Pine*, *Crimson Cone*, *Royal Scarlet*, and perhaps *Swainstone Seedling* and a number of others.

From their good conduct the present season, I shall watch with more than usual interest, the development of some ten or a dozen of Prince's choicest new varieties from Flushing, which I am testing for another season with care, for our soil and climate.

I have had more of the New Pine than any other variety in bearing in my garden, and the greater portion of my plants were transplanted on the 15th of July, 1850, and the ground leveled and mulched immediately, with an inch or so of saw-dust and old tan-bark, since which I have not had occasion to bestow any labor upon them, beyond an occasional watering when very dry, and the pulling of a very few weeds, and the result has been we have gathered between three and four bushels of fine fruit in a succession of more than four weeks daily abundant supply, from a spot of ground fifteen by forty-five feet, and at the full cost of less than *seventy-five* cents per bushel. The New Pine was among the first and last in the season of bearing.

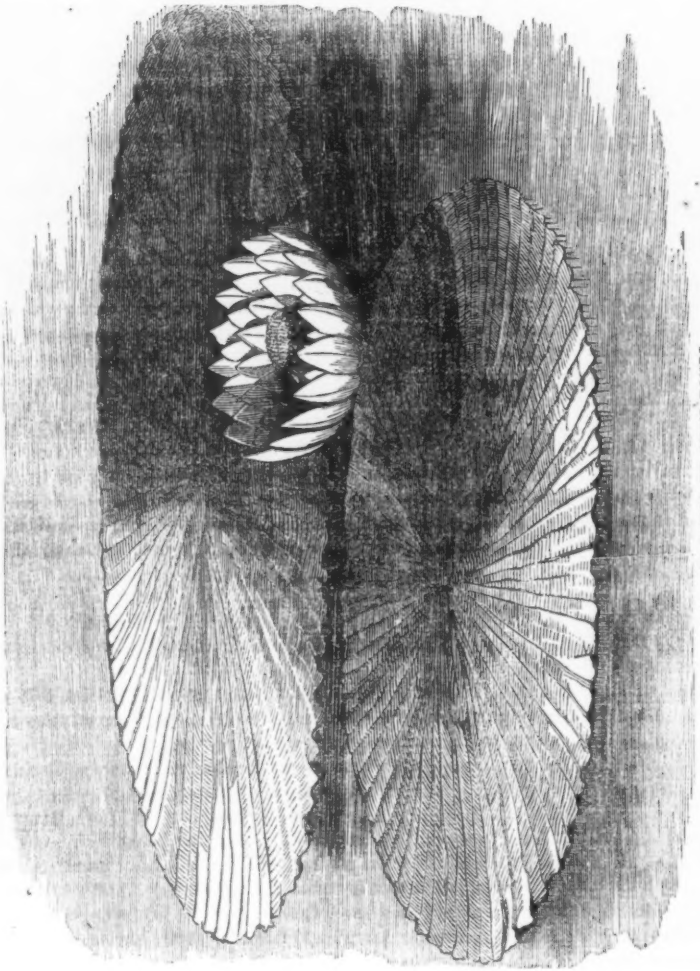
Unless I find other new varieties which I can take pleasure in giving a trial, I do not expect, after next July, to find it desirable to retain more than a selection of some half dozen kinds, out of the thirty-six now in my garden.

A lady from New-Orleans, brought to this place some three or four years ago, two kinds of French strawberries, which I will refer to. One is called the French Cucumber Strawberry, from its long and singular appearance, somewhat resembling the French Hautboy in foliage and appearance, but probably will not be desirable to cultivate only as a curiosity. The other is called the Prince of Orleans—in color and appearance resembling the Roseberry; not larger and not equal to that in flavor, but appears on a short trial to be a very large bearer, but rather tender for a market fruit.

We have also some seedlings of Burr's New Pine, fertilised with our best varieties, coming forward.

The large success of our citizens generally, in raising the strawberry the past season, has greatly increased the cultivation in this vicinity, and the next season we hope to take a more extended view of this fruit than ever before. R. G. P.

Palmyra, July 4, 1851.



VICTORIA REGIA IN OPEN PONDS.

THE VICTORIA REGIA IN OPEN PONDS.

By the following account from the Illustrated News, it will be seen that this magnificent water lily has been grown in an open pond in England. An uniformly high temperature of the water has been secured for it, partly by artificial means, it is true,—but we imagine this would not be needed in the United States—supposing the Victoria to be planted about the middle of June.

We understand Mr. Cope, of Philadelphia, has the Victoria growing in a hot-house which he has lately erected for this noble aquatic, and we hope some amateur will make trial of it now in the open air. Ed.

A successful attempt has been made by Messrs. John Weeks & Co., King's Road Nursery, Chelsea, to grow this magnificent plant in the open air. For this purpose was prepared a pond 21 feet in diameter, and 3½ feet in depth, wherein the lily was planted in loam and river sand, on the 3d of March, when it had three leaves, the largest being 18 inches in diameter. The plant has since increased in size, and has a robust and healthy appearance: the number of leaves on at present is seven, varying from 3½ to 4 feet in diameter; and, as the season increases in warmth, they will attain to a much larger size. The petioles of the leaves are from eight to twelve feet in length, throwing them a considerable distance from the base of the plant.

The first flower partially expanded on the evening of the 16th inst.: for some hours previously it gave out a very rich and powerful fragrance, which could be perceived at a considerable distance. The flower became fully expanded on the following evening, and displayed all its beauties to an admiring company, who had been for a considerable time watching its development. The colors of the lily are white and pink; the outer rows of petals being white, and the inner a rich pink. The entire flower is from nine inches to a foot in diameter: it is of short duration, opening only on two successive evenings; but there is a constant display of flowers throughout the season. The plant has a more noble appearance in the open air, than when growing in the hot-house aquarium—the leaves becoming hypocrateriform, a natural desideratum of much interest.

The pond in which the plant is growing is heated by hot water pipes, of which there are two rows placed at the bottom, communicating with a boiler which heats, besides, a range of houses, the temperature being thereby kept at from 75 to 90 degrees Fahrenheit. There is a constant flow of clear water into the pond, and a waste pipe to carry off the superabundance and keep the surface clear. A margin of blue, yellow and white water-lilies, is placed round the *Victoria Regia*, and tends to show well their lovely and truly regal Sovereign in all her majesty. A temporary covering is placed over the plant at night to protect it from storm and cutting winds.

The *Victoria Regia* has been an object of unceasing interest from the moment of Sir Robert Schomburgk, in 1837, finding this magnificent plant in one of the rivers of British Guiana. In England the *Victoria Regia* first flowered in 1849, and the *spectacle* was engraved in the Illustrated London News for Nov. 17. A leaf and flower of this plant, it will be recollected, was presented to her Majesty and Prince Albert, at Windsor, by Mr. Paxton; and the train of circumstances by which this very plant was mainly contributary to the success of the great exhibition is so interesting as to merit recapitulation. We give it in Mr. Paxton's own words:—"Having in contemplation the erection of the great conservatory at (Chatsworth) in its present form, it was determined, in 1836, to erect a new curvilinear hot-house, 60 feet in length and 26 feet in width, with the elliptical roof

on the ridge and furrow principle, to be constructed entirely of wood, for the purpose of exhibiting how roofs of this kind could be supported. The plan adopted was this—the curved rafters were composed of several boards securely nailed together on templets of wood cut to the exact curve; by this means a strength and firmness was obtained sufficient to support an enormous weight. This house was subsequently fitted up for the *Victoria Regia;* and it was here I invented a waterwheel to give motion to the water in which the plant grew; and here this singularly beautiful aquatic flowered for the first time in this country, on November 9, 1849. You will observe that *nature was the engineer in this case.* If you examine this, and compare it with the drawings and models, you will perceive that nature has provided it with longitudinal and transverse girders and supporters, on the same principle that I, borrowing from it, have adopted in this building."

DESCRIPTION OF TWO NEW CHERRIES FROM OHIO.

BY F. R. ELLIOTT, CLEVELAND O.

A. J. Downing, Esq.—Dear Sir: Some two years since I assumed description of several new varieties of cherries originating from pits of the Yellow Spanish, grown and fruited by Prof. J. P. Kirtland. These having become pretty extensively distributed, I trust have sustained elsewhere, as at home, the report I then made. Here they have fully sustained my words. The "Rockport Bigarreau," and "Kirtland's Mary," taking, however, a first rank, when considered as to point of real merit, market value and public favor. I have now to introduce to your readers, and the pomological world at large, the

Governor Wood Cherry.—This is a variety, the tree of which was grown at same time as "Kirtland's Mary," but afterhaving fruited one season, was by mistake transplanted, and thus retarded in again showing perfect fruit for two years. When first fruited, my notes were made to the effect that it would prove the "most valuable of all." My subsequent notes sustain my first, and I can now safely say, that for size, flavor, and containing a large amount of saccharine matter, it will excel any cherry in cultivation.

During four seasons that I have examined it almost daily while ripening its fruit, my notes vary but four days in noting the time it matures.

Governor Wood Cherry.

Description. Size—among the very largest. Form—roundish heart shape. Skin—rich light yellow, with a beautiful carmine blush slightly mottled or marbled, when grown fully exposed to the sun; the color clear rich red. Stem—varying from 1¼ to 2 inches long, and medium stout to slender. Suture—half round, followed on opposite side by a dark line. Flesh—light, clear rich yellow, half tender, juicy, with a sweetness equal or exceeding Black Tartarian, and with a very delicious flavor. Pit—round, smooth and regular. Tree—round, regular form, and moderately strong growth. Ripe—16th to 22d June.

Black Hawk Cherry.—This is also a seedling of Prof. Kirtland's, which has fruited

regularly since 1845. My notes and figure of it were first made in 1847, and have been compared with the fruit yearly since that time. As a market fruit I think there is no cherry at same time of maturity that will compare with it. As an amateur's fruit to be grown for the desert, those who like Black Eagle will have no cause to complain of this variety. In point of productiveness the Black Eagle maintains no chance for comparison, and in flavor will only hold its own.

Description. Size—with Black Eagle. Form—heart shape, sometimes obtuse and varying to pointed. Color—dark purplish black, when ripe almost coal-black; surface uneven. Stem—stout, inserted in a broad cavity. Flesh—dark purplish black, half tender, juicy, good flavor, rich and sweet. Pit—medium size, its surface undulating like the surface of the fruit. Ripe a few days later than Black Tartarian. Very respectfully. F. R. ELLIOTT.

Cleveland, O., July 6, 1851.

Black Hawk Cherry.

We have fruited for a couple of seasons several of the Ohio seedling cherries of Prof. KIRTLAND, described by Mr. Elliott in a former volume—and can bear testimony to their being a most valuable acquisition to our list of cherries. Rockport, Bigarreau and Kirtland's Mary may be classed with the few most select standard sorts admirably adapted to this climate. We therefore gladly give place to the preceding account of two more new sorts likely to supercede foreign varieties formerly considered first rate. ED.

PRACTICAL HINTS TO CULTIVATORS OF PEARS ON QUINCE.

BY W. E. HOOKER, ROCHESTER, N. Y.

THE pear-loving and pear-cultivating public, have of late years had their attention frequently called to the advantage of growing pear trees worked upon quince stock, both by the writers upon such themes, and by the nurserymen interested in supplying their wants. The advantages and objections to the practice, have been fully discussed by many, and now nearly every one who reads horticultural books, or attends horticultural meetings, knows something about them from experience or observation. Still, there are many who plant their trees, and are disappointed in their own case, and perhaps are disposed to blame those who have led them into the experiment.

My present purpose is not to give any new views of cultivation and management, but simply again to call attention to a few important features which have been before ably set forth, but which are often overlooked by cultivators, who proceed upon the supposition that the same treatment which enabled them to gather pears from trees upon pear stocks, will answer equally well with those upon quince. I desire to remove this mistaken idea, and at the same time encourage the cultivation of this most desirable fruit, in the most satisfactory and economical method.

If we examine the roots of a quince, we find that they are numerous, but not large or long; they do not extend to any great depth in the soil; nor are they inclined to spread a long distance from the stem or collar of the tree; consequently, the supply of food and moisture must be obtained within a small space of ground, and the ability of the plant to

sustain leaves and branches, is of course proportioned to the resources of its roots. If, now, we graft a *pear* tree upon it, whose range of limbs, and of course, of leaves and fruit, is large, and which is provided by nature with corresponding roots, extending deep into the earth, securing firmness to the trunk and moisture to the leaves, without by some artificial means, providing for this disproportion of parts, we must inevitably fail of full success.

In proof of this, we find that those who have planted dwarf pears in grass grounds, without giving them further care, and those who grow them in rich, well cultivated soil, but neglect to diminish the tops sufficiently to enable the quince roots to sustain the tree firmly, as well as those who have allowed their healthy and beautiful pyramids to support an enormous load of fruit while yet in infancy, thereby so exhausting its energy that two or three years nursing becomes necessary, before it is again useful, are not usually very strong advocates for pyramid, or dwarf trees; their own experience, certainly, would not warrant them in recommending their adoption, and if this were the best that could be expected of them, all men would agree, that the less we see of them the better we shall be off.

The obvious methods of avoiding the evils which I have pointed out, are, to secure to the plant a sufficient supply of food, by manuring more highly and frequently than we find necessary for the pear stock, by planting in such soils as do not suffer severely from drouth, by frequent stirring of the soil with spade or hoe, and most especially by abundant mulching; added to this it is indispensible, to reduce the size of the top, by pruning in the winter or spring, and also in some cases during the summer, though I apprehend we shall not in many instances, do so, with that care and patience which M. CAPPE, and other eminent foreigners have seen fit to bestow on their pets.

One thing is certain, the man who is not willing to pay some regard to the peculiarities of the position in which the pear is placed when worked upon quince, need not expect to gather as abundantly and continually, as some men do, who have never given a thought to their noble Bartletts and Doyennes beyond stripping from their laden boughs, the luscious fruits, with which nature has crowned the year. But to the good cultivator who can afford to spare an hour, now and then, to care for the wants of his silent laborers, there is an abundant and sure reward laid up, in the vigor, beauty and productiveness of this class of trees.

H. E. HOOKER.

STRAWBERRIES AND THEIR CULTURE.

BY A. GERARD HULL, NEWBURGH, N. Y.

HAVING experimented during the past three years with more than fifty varieties of strawberries, the conclusions reached may possibly benefit neophytes who fancy this delicious fruit. The soil—a clay loam with a hardpan subsoil—was deeply trenched—three and four feet—and richly manured.

1. *Trenching*—*deep* trenching—in this locality cannot be too earnestly commended. Its value may be fully illustrated in a dry season by comparing the crops of trenched and untrenched ground.

2. *Animal* manures can be abundantly used in trenched ground in safety, whether new or old, horse, cow or poudrette, &c.

3. *Moisture* is an essential element in developing size and flavor.

4. *Mulching*, whether of straw, hay, grass, long manure, &c. is necessary for the protection of the fruit from dust, while, in dry seasons, it subserves in a great measure the requirement of dew and rain. Mr. DOWNING's free and successful trial of *tan-bark* as a mulcher for strawberries will probably give it a preference over other materials. Prof. MAPES considers the *tannic acid* it contains *specifically* applicable to the strawberry, which adds another inducement for its general use.

5. Some strawberries flourish as well, if not better, in rows or in crowded beds. Examples: Crimson Cone, Hovey's Seedling, Iowa, Alpine, Wood, &c. Others, on the contrary, require planting in stools at liberal distances—whether dependent on sun and daylight or circulation of air—if large and fine flavored fruit in any quantity be expected. British Queen, Myatt's Eliza, Deptford Pine, Schiller and Wiley, should never be planted at less distances than two feet, while three and four feet, will enhance their size and quality.

6. Specific *inorganic* manures.—Many strawberry plants apparently demand varied specific nutrition, as much so as different families of trees. A large bed was prepared and divided into three equal portions; one containing *potash* neutralized by muck; another *ashes* treated in the same manner; and last *phosphate of lime* (Bone-dust.) Lines of the same plants extended across the three soils. Boston Pine, Crimson Cone, Iowa, Burr's Seedling, Columbus, Rival Hudson, Late Prolific, Wiley, British Queen, Myatt's Eliza, Victoria, Huntman's Pistillale, Scarlet Melting, Ohio Mammoth and Scioto displayed a sturdy growth throughout this entire triple tract; at the same time they exhibited a positive preference for the potash over the ashes; for the ashes over the bone-dust.

Buist's Prize, conversely, grew more vigorously and bore larger fruit where the bone-dust had been applied.

Black Prince grew with a sickly foliage, producing small and insipid fruit where potash and ashes were used; and the plants were miserable and the fruit almost worthless on the bone-dust tract. Tasting the latter variety from my neighbor, Mr. DOWNING's *tan-bark* bed, it was certainly excellent; confirming the judgment of its advocates, while the former justified the opinion of its opponents. Another illustration, requiring further attention, offers singular interest touching specific nutrition. A bed of plants, procured as Higgin's seedling, was fertilized with the following inorganic manures: Sulphur flour 1 pint; iron cinders 12; charcoal 40. The color and flavor of the fruit were similar to those of Mr. Downing's Black Prince. The product was enormous as to numbers; the average size approached three inches, and very many specimens exceeded four inches in circumference. Mr. DOWNING and others pronounce this strawberry to be the Black Prince! [We believe Higgins' seedling is a *scarlet* strawberry—the sort sent Dr. Hull under this name, was a very dark colored fruit—undoubtedly the Black Prince. ED.]

7. *Lime*, in almost every form, unless neutralised by fresh muck, or other substances, will injure most varieties of strawberry plants, and vitiate their fruit. The same objection will probably apply to potash in a crude state. A bed of Hovey's Seedling, where crude lime and potash were used, labored through two years of sickly existence, producing small and flavorless fruit, and reached a fatal decline this spring. Last year some vigorous plants of Hovey's Seedling were placed in the border of a bed specifically composed for the pear tree, *phosphates of lime* forming an important proportion. These plants have barely lived, and have not produced a single blossom this season.

I. STAMINATES—of these the following have been selected.

British Queen.—This strawberry far exceeds all others in regard to *size*, *flavor* and *number*. Specimens, four and five inches in circumference, with a delicate polished sur-

face of deep lake, and a rich juicy flesh, are the parents of this opinion. The Queen comes into bearing a trifle later than Hovey's, and continues among the latest, producing fruit about three weeks. It revels in a deep, moist, rich soil, and requires cultivation in stools, at a distance of three or four feet.

Myatt's Eliza.—This beautiful, light scarlet fruit, characterized by its burnished, seedless base, in frequent instances reminding one of an acorn, demands the *first* rank for *flavor* among strawberries. Examples have melted in the consumer's mouth, equalling the peculiar rich flavor of the best pine apple. It is slightly inferior to the Queen in average size and quantity, but later in maturing; indeed, it is later than any large strawberry, a bed being in fair bearing at this moment.

Deptford Pine.—This is a delicious large fruit, intermediate in color to the Queen and Eliza. It has more of the form and glistening surface of the former, and the flavor of the latter, with a degree or two more of acidity. It has proved a shy bearer the present season.

Schiller.—This German strawberry was procured last year from Mr. HOGG, who had imported it, but lost its original name. In vigor of growth, and in its large, free flowers, it exceeds any other plant of its kind. The fruit is paler than the Queen and darker than Eliza; of a capricious conical form; of the size of Eliza; of firm, sound flesh, and of a rich, aromatic flavor, frequently quite acid and sprightly, giving it a preference with some judges over the previous named. It ripens late. These four strawberries are suited only to private culture.

Buist's Prize.—The plants of this strawberry—in rows now three years out—have grown with surpassing vigor this season, and produced fruit equal in size and number to some of the best pistillates. Last year they produced indifferently. The flavor surpasses that of Hovey's, nearly equalling it in size, very many berries measuring four and four and a half inches in circumference. If this be its usual character, Mr. LONGWORTH can allow his anxieties respecting a good masculine standard, to repose on this noble plant, as answering the full requirement. These were cultivated in the triple tract of soil previously alluded to.

Burr's Seedling and *Mammoth.*—These two have produced fruit quite freely in the triple tract, approaching Buist's in size and number. The Mammoth, which has even a sickly and repulsive paleness, has the finest flavor, partaking in a fair degree of the peculiar aromatic taste of the New Pine.

Victoria.—This strawberry was grown in distant stools, and produced fruit, although sparingly, of marked beauty, fine flavor and good size, specimens measuring four inches in circumference.

Iowa.—This energetic staminate presents a massive foliage and produces most liberally, although its light scarlet berries are scarcely over the medium size, and are too acid where better ones can be easily secured.

II. PISTILLATES.

Hovey's Seedling—sustains its high reputation here for productiveness and size, many specimens exceeding five inches. It is, however, somewhat deficient in flavor.

Burr's New Pine.—This is the finest flavored pistillate of our land. The fruit does not exceed the medium size, and, although prolific, does not equal Hovey's in productiveness. [With us it proves much more productive. ED.] The plants seem to lose their vigor in our triple tract, and, like the Black Prince, require another and specific soil.

Huntsman's Pistillate.—This plant is a prodigious bearer. The fruit clusters around the base of the plant in rich masses. Some of its specimens measure four and five inches in circumference. It is paler than Hovey's, and *inferior* to it in flavor.

Columbus, *Rival Hudson* and *Late Prolific*. These strawberries of Mr. BURR, of Ohio, are entitled only to medium rank after a taste of his New Pine. The first, however, is a larger fruit, measuring three and a half inches in circumference, and is produced abundantly. The second is a handsome fruit, and in every respect preferable to the Old Hudson.

Wiley—one of the best of our pistillates. It produces on its single stalks, bouquet-looking clusters of fruit, which surpass in beauty all other strawberry groups. The fruit is round, of medium size, and deep red color. The flavor is pleasant—sub-acid and sprightly—rendering it one of our best table strawberries. One hundred and forty flowers and berries on a single plant, which I have had this season, is only a fair illustration of its productiveness.

The Wiley proves the value of open culture. Three years ago, a bed of this strawberry, cultivated in stools, produced surprisingly. Last year the plants were allowed to grow compactly; the yield was not more than one third, and the size and flavor were materially lessened. This year the free, open culture was pursued, that is, the plants were kept in separate hills or rows; the vigor of the plants, yield and character of the fruit, have astonished all by their display.

A plant, which has gained great reputation in our neighborhood under the name of *Alice Maude*, has proved, under Mr. DOWNING'S examination, to be identical with Wiley.

Myatt's Pine.—Plants purchased under this name have exhibited pistillate flowers. Whatever the *true* name may be, the fruit demands a place in the first rank for size and productiveness. The average size of the berries was about four inches; and the clusters of this large fruit were the most prominent of any on our ground. The plants were allowed to grow thickly in a well manured, three feet deep trenched bed. The only inorganic manure was well slacked *lime!* Here is a palpable exception to the hurtful property of lime; and another point gained for specific nutrition of different varieties of strawberries.

Crimson Cone is worthy of a place in every private garden. The fruit—so beautiful in form and color, of such fair size and excellent acid flavor—is a charming embellishment for a table, and precisely the requirement for our fair friends' preserves. It is an abundant producer, and, in luxuriance of growth, ranks with Schiller and Iowa.

Richardson's strawberries—*Early* and *Cambridge*—have not seemingly found with us a congenial soil, and have disappointed us both in size and flavor, after two years culture. Another year may, possibly, afford a more satisfactory decision. His *Late*, on the contrary, is a large and beautiful fruit entitled to rank in every large collection.

Of *Dr. Brinckle's* seedlings—*Cushing* and *Washington*—the former promises well, being, its first year with us, a well formed pleasant fruit, and one of the first to ripen.

Many other strawberries require at least another season to afford a satisfactory opinion. Aberdeen Bee-Hive, North's Victory, Scioto and Duke of Kent may be unhesitatingly discarded when so many superior strawberries can so much more profitably occupy their place.

A. G. H.

Newburgh, July 11, 1851.

Dr. HULL is engaged in some interesting experiments with special manures, the results of which cannot but prove interesting to horticulturists. He has imitated artificially most of the famous vine soils of Europe, and we are looking forward with considerable anxiety to the effects produced by mere soil upon the open air culture of the foreign grape in his grounds.

The foregoing notes on strawberries will be perused with interest by many of our readers. The fact which Dr. H. has arrived at, respecting the pernicious influence of *lime* up-

on most sorts of strawberries, is confirmed by what we heard last year in the neighborhood of Paris, of the difficulty of growing this fruit in the calcareous soil of that vicinity. In our own garden, we have entirely satisfied ourselves of the great value of *tan-bark* for strawberry culture. The beds should be covered with it when the plants are established—to the depth of an inch—an inch or two more may be applied as a protection against the cold of winter, in all situations north of Philadelphia. Its virtues are three fold; 1st, as a fertilizer—tannic acid being a specific manure for this plant; 2d, as a mulcher—keeping the ground cool, the fruit clean, and the weeds from growing; 3d, as a protection against injury by the frosts of winter. Ed.

THE CREAM OF THE ROSE CATALOGUES.

BY JOHN SAUL, WASHINGTON, D. C.

We commend to such of our readers as are likely to be bewildered by the innumerable varieties of the Rose now offered to amateurs, the following select list by an English cultivator of long experience, who has lately settled in the United States. It was originally written for an English Horticultural Journal, but seems to us admirably adapted in the main to this country. All the roses are *ever-blooming*—and ever-blooming roses certainly overtop all other of the present day flowers. We will only add, that the great secret of growing and blooming all this class of roses in the United States, is to put them in beds of loamy soil trenched two feet deep, and enriched with *one-half its bulk* of stable manure—which should have been well fermented first, (unless the beds are made up in the autumn to be planted in the spring—when fresh manure may be used. In such beds, ever blooming roses will form a continued succession of new shoots and blossom buds, during the entire growing season. Ed.

The season is fast approaching when gardeners will once more have to decide what description of plants will give to the flower garden the greatest beauty, fragrance, variety, clearness, and contrast of colors, with continuity of bloom for the longest possible period of time; and, not only are these qualities essential, but it is equally necessary to ascertain what class of flowers will give the greatest pleasure and satisfaction to the greatest number of persons. Were this last question proposed to me, I should answer unhesitatingly, Roses.

The Rose is no longer a summer flower, for we now have autumnal bloomers, surpassing, if possible, in color, beauty, and fragrance, our former favorites of June. Other classes of flowers, such as the Pelargonium, the Fuchsia, &c., have each its own admirers. On the other hand, there may be found those who will say of some plants, however beautiful, "I don't care much about this; it is not a tribe I much fancy." But has this ever been said of the Rose? I think not; I have never yet heard of any person saying, "I don't admire Roses!"

If Roses, then, are such general favorites, how comes it that they have not received that extensive cultivation which they deserve? for it must be admitted that in very few gardens they have received it. Is it because they are difficult to cultivate? Certainly not; no flower requires more simple treatment. Perhaps it may be in part caused by the long catalogue of varieties from which both gardeners and amateurs are puzzled how to select. With this in view, I will proceed to mention a few really good flowers—some of them old

sorts—which are adapted for grouping, and which, from their excellence, cannot fail to give satisfaction to those who may cultivate them.

In the flower garden we formerly had annuals, grouped in abundance to adorn, or, rather, disfigure it. These have given way of late to a more beautiful class of plants, which are annually bedded out, such as Scarlet Geraniums, Fuchsias, Calceolarias, Petunias, &c.; and, with as much propriety, may some of these make way for the grouping in the flower garden, of the more beautiful of the Autumnal Roses; for what can surpass or even equal the dazzling beauty of a bed of Geant des Batailles, Grand Capitaine, &c.; or the magnificence of clumps of Baronne Prevost, La Reine, and Souvenir de la Malmaison, &c.; or the extreme beauty and delicacy of masses of Mrs. Bosanquet, Eliza Sauvage, &c. The following varieties are well suited for this massing system of culture:—

HYBRID PERPETUAL ROSES.

1. *Baronne Prevost.*—Bright rose color, a very large flower, strong, vigorous, free grower, blooming freely from June till November. Always opens its blooms well, whether in the heat of summer, or the cold damp weather of November. Well suited for a large clump. A most magnificent Rose.

2. *Dr. Marx.*—Rich carmine color, large flower, strong, robust grower, opening its flowers freely, both in summer and autumn. Will make a splendid dark mass. A very beautiful Rose.

3. *Duchess of Sutherland.*—Mottled rose color, bright and clear: free, vigorous grower, will contrast with Dr. Marx, or Geant des Batailles. A beautiful flower.

4. *Geant des Batailles.*—Dazzling crimson, the nearest approach to scarlet in this class; very free grower, and one of the most abundant bloomers, flowering from June to December, and invariably opening its blooms well. It will contrast well with any of the light flowers which follow. A bed of this under a bright sun, is almost too brilliant for the eye to rest on.

5. *La Reine.*—Brilliant glossy rose, very large, has the appearance of a true perpetual Cabbage, but much larger; strong robust grower, and free bloomer. This, like Baronne Prevost, forms a magnificent clump. A grand flower, well worthy of its name.

6. *Madame Laffay.*—Bright crimson, very fragrant; free, vigorous grower, and an abundant bloomer from the end of May till the middle of December. Expands its flowers well, and never fails to give them in abundance. One of the most useful of Roses, and admirable for a clump.

7. *Standard of Marengo.*—Brilliant crimson; will, I doubt not, be equal to the Geant des Batailles, but is as yet rather scarce.

8. *William Jesse.*—Lilac crimson, a large and fine flower, strong grower; forms a splendid mass.

BOURBON ROSES.

9. *Bouquet de Flore.*—Bright carmine; opens freely, and blooms profusely from June to November; a strong vigorous grower, and admirably adapted for a mass. A very fine and striking Rose.

10. *Comte d' Eu.*—Brilliant carmine, very showy, and continues to bloom well through the summer and autumn; a moderately strong grower. Forms a lovely bed. Distinct and very good.

11. *Enfant d' Ajaccio.*—Scarlet crimson, very bright; a moderately strong grower. Its only bad quality is, that it will not open well in hot summer weather, but in autumn it is truly brilliant; the rains of October appear not to affect it in the least; I have seen

it at this season, and as late as the middle of November, a sheet of dazzling bloom. Very beautiful and good.

12. *George Cuvier.*—Rosy crimson, fine shape, expands its blooms freely, a moderate grower. Distinct and superb.

13. *Grand Capitaine.*—Velvety, fiery scarlet, very brilliant; opens its flowers well both in summer and autumn; not very double; dwarf habit, well adapted for a small bed, where the intense brilliancy of its flowers will show to advantage. One of the most distinct of Roses.

14. *Pierre de St. Cyr.*—Glossy rose, fine large flower, expands well and blooms profusely; a most robust grower. Will form a splendid clump to contrast with any of the strong growing Hybrid Perpetuals. A superb Rose.

15. *Queen.*—Fawn-color shaded with salmon, very sweet scented. One of the first and last in bloom, while invariably expanding its flowers well, which appear in profusion. Rather dwarf habit, but will form a lovely small clump. Distinct and beautiful.

16. *Souchet.*—Purplish carmine, large flower and a good dark variety; indeed, one of the best of this class for the purpose; moderate grower, expanding its blooms with freedom. Superb.

17. *Souvenir de la Malmaison.*—White with fawn center, very large and magnificent, flowering freely through the summer and autumn, strong grower. This will make a gorgeous clump, in contrast with such Roses as Baronne Prevost, La Reine, &c.

CHINA ROSES.

18. *Archduke Charles.*—Light rose changing to brilliant crimson, a profuse bloomer, moderate grower. One of the best changeable Roses. Unique.

19. *Clara Sylvain.*—Pure white, a superb flower, blooming freely from June till the end of October; moderate grower, suited for a small bed, and the best white for the purpose. Beautiful.

20. *Eugene Beauharnais.*—Beautiful bright lake, a free bloomer through the summer and autumn. One of the hardiest Roses in this class, as well as one of the best dark varieties, free grower, splendid in a small clump. A charming variety.

21. *Mrs. Bosanquet.*—Creamy white; I have heard amateurs call this "the Wax Rose," from its loveliness; a profuse bloomer from June to November, moderate grower. This Rose appears intermediate between the Chinese and what are called Bourbons. Will form a small clump. If possible, more unique and beautiful than any other variety. A truly splendid Rose.

TEA-SCENTED ROSES.

22. *Adam.*—Rosy blush, very large and magnificent, with beautiful camellia-like petals, blooms freely, moderate grower, rather tender, and needs slight protection in winter. Suitable for a small mass. Very fine.

23. *Comte de Paris.*—Creamy blush, a large fine flower, blooming abundantly, growth moderate. A very desirable variety, forming, in a bed, a lovely mass. Superb and very distinct.

24. *Devoniensis.*—Creamy white, buff center. Shall I say the most beautiful of Roses? It has now become so well known as scarcely to need description. Fragrant as well as beautiful. A clump of this is one of the loveliest objects in a flower garden.

25. *Eliza Sauvage.*—Cream with deep orange center, profuse bloomer, and the best yellow for a small bed. Dwarf, delicate habit, requiring, and well deserving a little protection in winter. An extremely lovely flower.

26. *Safrano.*—Deep fawn, very lovely in the bud, a free flowerer, and a moderately

strong grower as a Tea-scented Rose. Being more hardy than the Eliza Sauvage, where that variety is considered tender, or the clump large, this should be used. A very unique and beautiful Rose.

NOISETTE ROSES.

27. *Aimee Vibert.*—Pure white, blooming in immense clusters, very showy. There being a scarcity of good white Autumnal Roses, this will be found useful to group in contrast with the strong growing Bourbons and Perpetuals, in large clumps; using Clara Sylvain, with more dwarf varieties, in smaller beds.

28. *Narcisse.*—Pale lemon; a beautiful flower, blooming in abundance. This is a Tea-scented Noisette of moderate growth, and rather tender, requiring slight protection. Will form a beautiful small clump. A very first rate Rose.

29. *Ne Plus Ultra.*—Creamy white, fragrant, dwarf habit, blooming in large clusters. Like Narcisse, a Tea-scented Noisette, but more hardy than that variety. Will contrast admirably with any of the dwarf dark varieties, such as Grand Capitaine. A very desirable and beautiful Rose.

30. *Ophirie.*—Bright gold and salmon, a strong grower, blooming in rich abundance from the early summer until the approach of frost; even the wet and damp of autumn appear only to give a deeper tint to its lovely flowers. Indispensable, from its color for a large clump where this color is wanting. The other yellows, which are free bloomers, are of too delicate growth, and only adapted for small beds. Pegged over a large clump, which it should be, what an unique mass it forms in the flower garden! Fragrant and very distinct.

This list will be found ample from which to select. The varieties named are all free bloomers, and of first-rate excellence, flowering until arrested by the approach of frost. If grown in masses in the flower-garden, planting but one variety in a bed, and well contrasting the colors, they will be found far more pleasing, as well as more beautiful and fragrant, than the majority of plants at present so employed.

I will just add one or two hints on their cultivation in the flower garden—they are not intended as more than hints. If the natural soil is of a tenacious loam, it will be sufficient to well enrich it with any strong manure, such as night-soil, slaughter-house dung, or any similar strong manure. On the contrary, should the natural soil be very sandy or poor, I should recommend a portion to be taken out, and the bed filled with rich, stiff, fibrous loam, or any such soil that may be at command; well manuring, as in the other case, and thoroughly working up the mass to a couple of feet in depth, mixing the ingredients together. The natural soil I take for granted, is drained; stagnant water about their roots is as injurious to Roses as to any other plants. The distance which they should be planted apart is variable, and must depend on whether the variety is a weak or a strong grower, or whether intended to be pegged over the bed, or grown as a bush. In the latter case they will require a greater distance than in the former. In a general way, I should say, the strong sorts, if to be pegged down, should be two feet apart each way; and if grown as dwarf bushes, from two feet and a half to three feet; dwarf, or moderate growing varieties, a foot and a half if pegged down, or from two to two and a half feet if grown as bushes. In some gardens the pegging down system is indispensable, whilst in others this is immaterial; as amateurs wish to see the beauty of their Roses growing individually as dwarf bushes.

Roses, of the classes I have selected, require, in a general way, but little pruning. The delicate growers require to have the head regulated in winter, and any dead wood cut out. The strong growers, at the same season, should have the gross and weak shoots taken out,

shortening the others moderately, and regulating the head. In summer, as soon as any strong shoots are perceived not likely to flower, the points should be pinched out; and the laterals from these in general bloom well. This applies to all. As soon as the first bloom is over, cut the dead flower stalks back to the next well developed bud, but not too far back; for if this is done the branch will not break freely, whereas in the former case it will soon push out abundance of fresh flowering shoots. Give abundance of liquid manure during the growing season. There is no fear of green centers in any of the Roses I have selected; nor is this a failing common to many of the autumnals.

NOTES ON THE WEARING OUT OF VARIETIES.

BY A. MARSHALL, WESTCHESTER, PA.

A. J. DOWNING, Esq.—Your learned correspondent, Mr. TOWNLEY, in an essay on the "Conditions required for the growth of Parasitic Fungi," published in the Horticulturist for July, uses the following language:—"I may be permitted to say that the evidence of apple trees and other plants seems to me to afford substantial grounds for coinciding with the views advanced by ANDREW KNIGHT, that each plant propagated by extension, that is, by buds, cuttings, layers, or roots, instead of seeds, has a limited duration—that it cannot, by any known means, be continued equally healthy and vigorous forever; but that sooner or later the progeny will gradually decline in vigor, become unhealthy and unproductive, not suited to the purposes of the cultivator, and consequently extinct."

The *evidence* of apple trees and other plants! Well, that is coming to the point. As Mr. TOWNLEY is in possession of such evidence on the subject as affords him substantial grounds for coinciding in those views, I hope he will be kind enough to lay it before the readers of the Horticulturist, that each one may decide for himself. Some people believe easier than others. Give us the facts, and let each one draw his own conclusions.

Again, (on page 320,) speaking of restoring the potato by seedlings, he says—"It is equally vain to expect, as many have done, that the vigor of the plant can be restored by one generation of seedlings. The progeny of unhealthy and degenerate parents cannot reasonably be expected to be perfectly healthy and hardy."

He first condemns propagation by extension, in comparison with seeds, and then condemns the seedlings too. His hobby evidently trips a little here;—I like to see so bold a rider mounted on a sure-footed nag.

Now, if the evidence shall prove conclusively that trees and plants propagated by extension, do produce degenerate fruit from that very cause, and that alone; that the seeds also partake of the degeneracy, and can only be restored through many generations, if at all; then we may prepare to shut our mouths against good apples and potatoes, for a long time to come.

Seedling apples must be resorted to, in order to restore the fruit to its pristine purity, says our new philosophy. We have the Northern Spy, the Melon, the Mother, the Baldwin, the Jeffries, and many others. Now we want to see the *evidence* that the seeds from which these new varieties were produced, were not of the fruit of some of the old "degenerate" varieties. If this cannot be produced, we may have a long road before us to travel before reaching the summit of perfect fruit, by a wild-goose chase of seedlings.

Our natural fruit, so called, is generally produced from the seed of trees propagated by

extension; therefore, acccording to this new philosophy, we must have nothing to do with them.

In conclusion, Mr. Editor, I would advise your readers to propagate good old varieties of the apple by extension, as they used to do—get fat on the fruit, and not get frightened before they are hurt. Yours, &c. A. MARSHALL.

REMARKS.—This is a very interesting question—the duration of varieties—and one which we shall be glad to see discussed by practical men in our columns.

It is not a little curious that a variety that is considered to be worn-out by cultivators in an old and long settled part of a country, if taken to a new country, or new soil well adapted to it, will immediately resume all its original vigor. This has been lately illustrated by potatoes of old and favorite sorts, that could with difficulty be preserved from the rot in this part of the United States, but which, taken to California and planted, produced immense crops of potatoes, of very large size and unrivalled excellence, entirely free from rot, and showing all the habit of the most healthy new variety. It would appear from such facts as these, (which have given rise to the practice so well known among farmers and gardeners of "changing seed,") that the variety wears out the soil where it is grown before it becomes decrepid in itself.

Mr. LOUDON, in the Suburban Horticulturist, the work on gardening which he published just before his death, gave an excellent expose of the different views on this subject in the following paragraph.

All the plants of a variety which have been procured by division, for example all the plants of any particular variety of grape, apple, or potato, being in fact, only parts of one individual, it has been argued by Mr. KNIGHT, that when the parent plant dies, all the others must die also; or to put the doctrine in a more general form, that all varieties are of but limited duration. This opinion, though it has been adopted by many persons, has not met with the approbation of Professor DE CANDOLLE, who says that the permanence of the duration of varieties, so long as man wishes to take care of them, is evident from the continued existence of varieties the most ancient of those which have been described in books. By negligence, or by a series of bad seasons, they may become diseased, like some of our varieties of apple or potato; but by careful culture they may be restored, and retained, to all appearance, for ever. We are not sure that DE CANDOLLE'S theory will hold good with the finest fruits and florist's flowers. The species might be recovered, but we question whether in many instances that will be the case with the variety. Perhaps a hypothesis might be devised which would coincide with both authorities. It would coincide with that of DE CANDOLLE, if Mr. KNIGHT had spoken with reference to actually wild varieties only; but with regard to improved varieties, as they are understood in a horticultural point of view, they are doubtless prone to decay, in proportion to their degree of departure from the physiological perfection which enables the wild variety to maintain itself continually on the surface of the globe, independent of the care of man. A wild variety will produce seed under favorable circumstances, but many highly improved varieties, in a horticullural sense, do not perfectly mature their seeds under any circumstances whatever; and, therefore, must be physiologically imperfect, and being so, *a priori*, if it be admitted that imperfection is a principle of decay, it will not be denied, that no plant imperfectly constituted can carry on its functions but for a more or less limited time, even under the most favorable circumstances.

THE ANNUAL CATTLE SALE AT MOUNT FORDHAM.

One of the pleasantest events of last month, in the "rural districts," was the annual sale of stock at Mount Fordham, on the 24th of June last.

Mount Fordham, (as all our agricultural readers know,) is the farm and country seat of Lewis G. Morris, Esq., about eleven miles from New-York. You reach Upper Morrisiania by the Harlem railroad, in half an hour from the City-Hall, and three-quarters of a mile from the station lies Mr. Morris' residence.

There is a combination of rural elegance and substantial comfort about the mansion at Mount Fordham, that made the most favorable impression upon us. A country house, solidly built of the stone of the native hills about it, always seems to us to have the genuine look of a homestead, far more than one built of any foreign material, however beautiful in itself, and therefore the genial gray tint of this building pleased us far more than if it had been marble or brown stone. There seems, too, a character of duration and permanence about a stone house in the midst of landed property, that connects itself agreeably with other things in nature that last "as long as grass grows and water runs,"—a feeling that we can never get from wooden buildings, however well proportioned, agreeable in design, or economical in construction. The house at Mount Fordham is a good specimen of a free adaptation of the Tuscan or Italian style to this country, and we saw it first with an undefined feeling of a previous acquaintance. Mr. Morris informed us that he was indebted for the conception of the plan, to our *Cottage Residences*—published some years ago. The house is, however, larger than our design, and had the benefit while in progress of erection, of Davis' talent as an architect, together with Mr. Morris' excellent practical notions of comfort and convenience for the life of a hospitable landholder in the northern states. As compared with many of the residences of gentlemen-farmers, it struck us as being spacious, genuine in character, and agreeable in arrangement, the details bold and appropriate, without any of the frippery ornaments which disfigure many otherwise acceptable modern houses.

We found a large company of gentlemen from all parts of the Union, assembled at this annual sale—which has become a kind of agricultural fete-day, as well as business day, for those who take an interest in improved agriculture. A goodly number of ladies added to the animation and pleasure of the scene, and gave us abundant proof, that with improved agriculture comes a larger and healthier interest in rural pursuits, from intelligent women all over the country.

Around the house at Mount Fordham, extends on all sides a kind of meadow-lawn, enclosed and divided by pretty wire fences of various patterns. This lawn is kept short by the grazing of improved dairy stock, and we were glad to see successfully practiced what we have been commending so strongly of late to our readers, as the most available point of English country places, that we saw on the other side of the Atlantic—that is the maintenance of a neat and handsome lawn about a country house, not only without the expense of mowing, but with united profit and beauty—the profit of grazing the grass and the beauty—the real pastoral beauty—of fine cattle, soft turf, and pleasant groups of trees, as the home landscape of our country places generally. By adopting this course, the *hay-field* aspect of many so-called gentlemen's country-seats, would disappear, and a more complete and satisfactory lawn or park be acquired, with no loss of money, and the attainment of a higher species of keeping to one's country home.

Mr. Morris has done this satisfactorily and well, and we advise those who wish to take a hint from actual practice, to pay a visit of an hour to Mount Fordham.

On the morning of the sale, this meadow-lawn presented an animated spectacle—for it was embroidered with groups of the finest stock—Devons, Ayrshires, the fine Short-horns, which Mr. MORRIS' repeated visits to England have secured to the country, the improved dairy stock which he has bred here upon the spot, fine South Down sheep, blood horses, &c. In the yards about the spacious barns also, Suffolk and other pigs, that engaged the attention of many who were curious in this department.

An admirable luncheon was most hospitably served to all the visitors at noon, and directly afterwards the sale commenced. In the large circle of buyers who surrounded the auctioneer, we noticed not only most of the leading agriculturists who are stock-breeders —the editors of our leading farming journals, and the new-beginners from various parts of the country, who take their initiatory step in Short-horn learning on such occasions, by buying the worst calves sold at the highest comparative prices—but a good many of those whom the public are accustomed to think of as more closely devoted to the production of ideas than the breeding of stock, but most of whom we were glad to learn, had become interested members of the rural districts. BRYANT, the poet, looked thoughtfully in the mild faces of young heifers, and CLARKE, the Editor of the Knickerbocker, seemed speculating whether improved rounds of beef for the "Editor's Table," could be had out of the material before him, while an artist-farmer evidently bid with the feeling of PAUL POTTER in his heart, rather than any knowledge of the *thorough-bred*. Some cockneys, in pumps and white stockings, had stolen out by the train, evidently wondering why the streets had not been watered for the day, and offered a fine contrast to a couple of our quiet imperturbable friends, the Shaking-Quakers, who, in their long brown frocks and broad-brimmed hats, mingled in the crowd, evidently vastly more interested by the stock itself, than by the wit of the auctioneer, or the varied expressions portrayed in the faces of his auditory.

The bidding was spirited, and the second annual sale passed of in a manner highly satisfactory to Mr. MORRIS. Dairy Stock brought prices which denoted a confidence in the public in his labors as a breeder, and a growing interest in the general improvement of our farm animals. This class, consisting of cows, heifers, and heifer calves—twenty in number —averaged $78.87 per head. The pure bred stock, of which comparatively few were on the catalougue, brought still higher prices. It will be understood that Mr. MORRIS reserved, as a breeding stock, a number of his choicest animals—Short-horns, Devons, and Ayrshires—and the future sales of stock may be expected to exceed his former ones in interest and vlaue.

The strictly agricultural journals will give the details of the sale at greater length. What we have desired chiefly to draw attention to, is the steady and persevering effort of Mr. MORRIS, not only to improve the stock of the country, but to set an example of the best management of such sales, and the general condition and treatment of what may be considered the largest class of genuinely comfortable country places in the northern states.

Morrisania PO
West Chester Co
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NOTES ON STRAWBERRIES, GRAPES AND PLUMS.

BY N. LONGWORTH, CINCINNATI, O

THERE is a communication in your last number, headed "Staminate Strawberries productive," and refers to Hovey's Seedling, Methven Scarlet, and Burr's New Pine. I have much to learn, if these are staminates. I say they are all pistillates, and wholly defective in stamens. He reports me as saying that neither will produce half a crop, or bear perfect berries, if separated from all others. Here he again errs. I say that neither variety, separated from others, will bear *one-twentieth of a crop of even defective berries*, and I have never yet seen them bear a single perfect one. This is not the first instance of a fair crop from pistillates, separated from all others. Mr. LOCK, of our vicinity, had a fair crop of Hovey's Seedlings with no other variety within 100 yards, and so notified our society. The next season, when his plants were in bloom, a committee went to his garden, and were astounded, for not a staminate blossom was to be seen, and the stems and leaves proved all the plants to be the true Hovey. When about to leave, one of the committee, who did not believe in spiritual knockings, looked under a currant bush, and found a few staminates in full bloom. They were pulled up, and the next season Mr. LOCK had not a single fruit, and so reported to the society.

Another gentleman was equally fortunate with your correspondent. He bought a pistillate variety and planted a large patch, and had a full crop for three years, and so reported to the members of our society. His garden was visited by the members of the society when his plants were in blossom, and they found the staminates were increasing so fast from runners, that they would soon destroy all the pistillates. Nurserymen generally cultivate many varieties on the same border, and it is rare to buy them without a mixture. Even if the varieties are kept far apart, a seedling staminate may come up, and before he is noticed, ungraciously crowd most of his companions out of the bed. The gentleman errs in saying Burr's New Pine produces fruit of the largest kind. It requires but little sugar, is by many admired for its flavor, and is superior to most others when eaten from the stem. But I deem acid strawberries, where sugar is plenty, superior to all others, and among these the Old Hudson has no superior. If the hermaphrodite seedling of Mr. SCHNIKE, in the Garden of Eden, shall in future bear as full a crop as it has done for four years, we shall have but little cause to quarrel about the sexual character of the strawberry plant—for it will do what no plant in England has done, where we hear of hermaphrodites only—bear a full crop of extra large fruit, and of good flavor. McAVOY'S and SCHNIKE'S Garden of Eden pistillate seedlings, at our late exhibition, surpassed all others in size, and to one of McAVOY'S, was awarded the prize of $100, as a pistillate superior to the Hovey in size. Mr. HOVEY'S has for many years surpassed all others in size, and to be entitled to the premium, it was required the seedling should surpass it in size. This, three of McAVOY'S and two of SCHNIKE'S seedlings, had done for three years, on exhibition before the society. We *ignore* your concurrence in the opinion of your correspondent, Mr. Editor, "that pistillates or staminates change their character."

My experience in cultivating the foreign grape, does not correspond with that of your North Carolina correspondent. Against my high garden wall, I have 100 foreign grape vines, consisting of many varieties, and several kinds of native grapes. The natives shoot out as early in the spring as the foreign, and this spring we had a late frost that killed half of the young shoots in our vineyards. Against my walls, the young shoots of the

native vines were the longest, and were all killed down. All the shoots of the foreign vines escaped. I attribute this to the more vigorous growth of the native, and the greater quantity of sap. But this is mere guess-work. The shoots of the foreign and native vines, fifty feet from the wall, were all killed. Foreign vines grafted on our natives, are equally tender as on their own stock, and are with me often killed down to the native stock. I shall be pleased to learn that the grapes of your correspondent succeed better in his southern latitude than in our region. He will be more successful than the vine cultivators were in South Carolina. Mr. GUIGNARD wrote me that *four-fifths* of his wine turned to vinegar; and I know that the wine of Mr. HERBEMONT, sold after his death at auction, was rapidly becoming good vinegar. They were both men of great skill and judgment. There are many things hard to account for. I believe that wind alone will not impregnate hermaphrodite strawberry blossoms. That insects are necessary. On my border, against a high wall fully exposed to the south, and where, from the warmth of the atmosphere, flies and bees congregated, even in our cold weather, my SCHNIKE'S hermaphrodite and pistillates, this season, produced a full crop of perfect fruit. Fifty feet distant, my pistillates had not one perfect fruit to 100 blossoms, though in close contact with staminates, and the hermaphrodites had not one perfect fruit to twenty blossoms. Here it was too cold to attract insects. A singular instance occurred in my grape-house. The handsomest grape in the house I got from Mr. BUIST, but under a wrong name. Its true name I know not. The bunch is very large and the grape beautiful. It has ripened fruit two seasons. Three or four blossoms on a bunch were impregnated, and had very large, long grapes, with seed, and of fine quality. The residue of the grapes had no seed, and were not larger than peas. This spring, by merely shaking the vine, all the blossoms are fully impregnated, and the fruit large. My gardener was led to try this experiment from their practice in England with their hermaphrodite strawberries. In forcing their plants in green-houses, they are placed on boards which are jarred to insure impregnation. I had supposed the location of the stamens over the pistils, and the current of air would always insure impregnation. It may do it where the blossom shoot is upright, not where drooping.

You say, Mr. Editor, that Texas and New Mexico may hereafter give us Sherry and Madeira wine. The Herbemont grape is a table grape of superior quality, and the most vigorous growth of any grape in our vineyards. This grape, without the addition of spirit or sugar, will make a wine of the same flavor, and of superior quality to the Manzanilla Sherry, and our Missouri grape, with the addition of brandy, equal to Madeira. I say with the addition of brandy, for brandy is added to Madeira wines. Without brandy, the Missouri makes a superior wine. The vine is hardy, but a delicate grower. The vines should be planted close together and trimmed low.

You say, "no method of securing the plum from the ravages of the curculio, has proved effectual, but placing the trees in the midst of the pig and poultry yard." I have not lost a crop by the curculio in twenty-five years, and in the same time had but two crops in other parts of the garden. I have forty trees planted round the house, with a compact and clean brick pavement extending beyond the tops of the trees. Others have, with good pavements, been equally successful. Some of your eastern writers say, that where their plum trees bend over a stream of water, that that part of the tree escapes the ravages of the curculio. The reason is this, if true. The instinct of the insect teaches it not to deposit its egg where the young must perish when it falls to the ground, and cannot obtain winter quarters. The insect is a timid one. The proximity of my trees to the house, where persons are constantly passing, may aid in keeping off the insect. This is the rea-

son why hog pens often keep them off. Destroying the young will not be a perfect remedy, as the insect flies from garden to garden. Mr. THATCHER, of Chilicothe, in a late letter to our Horticultural Society, speaks of an insect that deposits eggs in his grapes, but which passes by those that hang over a pavement. I find that Dr. HILDRETH, of Marietta, of our state, and Dr. WARDER, Editor of our Western Hort. Review, concur with me in the opinion that insects are indispensible in the impregnation of strawberres.

Yours. N. LONGWORTH.

Cincinnati, O., July 15, 1851.

Foreign and Miscellaneous Notices.

NOTICES OF VARIOUS VEGETABLES AND FRUITS.—*Pomeranian Cabbage.*—Remarkable for its conical tapering form, very compact and firm to the apex. It is very hardy, and likely to prove valuable in situations too cold for the Battersea and other cabbages, grown in the neighborhood of London.—*Jour. Hor. Soc.*, vol. 5, p. 280.

Haricot d'Algiers.—A Runner Bean, from Lorraine, remarkable for its pale color; and the pods being entirely destitute of any lining, they are exceedingly tender and excellent when cooked. Its pale color renders it unattractive, but when known it will be esteemed for private gardens, though not suitable for market purposes.—*Ibid.* p. 281.

Early Peas.—Essex Champion, Warner's Early Emperor, Warner's Early Conqueror, Early Bedalean, Early Railway, and Early Wonder may be considered identical. Warner's Early Emperor is stronger and taller than the Early Kent; not quite so early, but a few days earlier than the Early May. Danecroft Rival, Danecroft Early Green, Farnes' Conservative Green Marrow, and the Transparent Pea are the same.—*Ibid.* p. 282.

Late Peas.—Of fifteen varieties (so called by the seedsmen) the following appear to be the best, as proved in the Horticultural Society's Garden:—*American Dwarf*, sown April 6, fit for use July 8th; about one and a half foot high, a good bearer, ripening about ten days later than Bishop's Long Pod. *Stubb's or Burbidge's Eclipse*, sown April 6th, fit for use July 12; a good dwarf for its season, having the peas larger than any other variety equally dwarf. *Hunter's New Marrow*, sown April 6th, fit for use July 18th; larger than Knight's Dwarf Marrow, and of very sugary quality; a good bearer.—*Ibid.* p. 282–3. Hairs' Dwarf Green Mammoth Marrow, two and a half feet high, sown March 11th, in full flower June 24th; six peas in a pod of large size and full flavor; first gathering July 10th, the most prolific and best.—*N. B. Jour. of Hor.*, p. 41.

Cauliflowers were sown on April 9th, and subsequently treated alike in every respect. Of the eight kinds tried, the large Asiatic and the Walcheren proved to be those most deserving of cultivation. It must here be remarked, that April 9th is much too late to sow Cauliflowers to prove in this country; for every gardener knows that a kind that comes good in spring may be almost worthless in a dry hot summer. The early varieties were failures; but the late kinds were good. In experiments upon vegetables, it is important that they should be proved in the best season for their growth. *Jour. Hor. Soc.*, v. 5, p. 24.

Summer Lettuces.—White Paris Cos: Of all the varieties of summer Cos Lettuces, this was the *largest*, the *best* and *longest in running to seed*; it was sown April 10th, and had not commenced to run July 27th, when the other Cos Lettuces sown on the same day were running to flower. *Malta*, sown April 10th; it was only running partially July 27th. A good Cabbage Lettuce, larger than the Neapolitan; leaves dentate, their margins not curled.—*Ibid.*, p. 26.

Neapolitan Cabbage Lettuce.—Sown April 10th; still remained in the cabbage form without running July 27th. Compact, finely blanched, crisp, and tender; leaves having the margins dentate, a little curled. As in the last season, so in this, it has proved the best Cabbage Lettuce. From the above detail it appears that the above are the best summer Lettuces, and that various others reputed new and good, are not deserving of cultivation.—*Ibid.*, p. 26.

The Barker Nectarine, when first introduced from Mr. Barker of Suedia, was noted as producing leaves of globose glands, large flowers, and *peaches* of little merit. Subsequently, one small twig was observed having reniform glands. Buds from this were taken and worked on a tree against the south wall, and the fruit proves to be the Nectarine. Leaves with reniform glands; flowers small; fruit large obovate, dark red next the sun; pale yellowish green where shaded. Flesh fine, yellowish white, rayed with bright red at the stone, from which it parts freely; rich in this unfavorable season (1850;) but scarcely so aromatic as the Violette Hative. Stone larger than that of the sort just mentioned, flattish, obovate. Kernel *bitter*. This variety is quite distinct from the Stanwick Nec-

tarine, originally obtained from the same gentlemen, the one having a sweet, the other a bitter kernel.—*Ibid.*, p. 25.

Walburton Admirable Peach.—Raised near Arundel, Sussex, and supposed to be a seedling from the Noblesse, which it much resembles, but is more valuable in quality, in consequence of its ripening from three weeks to a month later, or about the same time as the late Admirable Peach. Flesh melting, parting freely from the stone; leaves serrated, glandless. Ripe and in fine perfection this season, (1850,) the first week in October.—*Rivers in Florist*, p. 11.

Strawberries.—Of these, Keen's Seedling, Princess Alice Maud, British Queen, Old Pine, Comte de Paris, and Elton, are recommended as the best by Mr. Whiting; and Black Prince, Wilmot's Prince Arthur, Kitley's Goliah, and Myatt's Surprise, as being worth a trial.—*Florist*, p. 9.

Market Gardening.—The land can well sustain so much cropping, on account of the heavy dungings, trenchings, and hoeings, which it receives. If you ask a market gardener what is to succeed this or that crop, the answer is "Don't know; it depends upon what is ready for planting." Continued trenching two spades deep seems expensive; but market gardeners know that after an active crop the top soil for several inches is quite exhausted, and hence the reason for continued trenching, to bring up the top soil that but a few months before had been turned down, with a large proportion of dung to enrich it, and fit it for active use along with the half decayed manure. The laborers employed on 150 acres are seventy during winter, and in summer about 150. The cost per acre is from £9 to £10; the tithes being 10s. to 12s. per acre. Some idea of the amount of labor consumed on small matters will be conceived when I state that the whole of the frames, amounting to one thousand lights, and the hand glasses, to four thousand, are repaired every autumn.—*Gard. Chron.*, p. 4.

Dickson's Emperor Apple.—Size large, form irregular, slightly ribbed, color yellow, with dashes of carmine red interspersed, as well as with numerous minute specks of yellowish straw color; the side most exposed to the sun colored with a rich reddish brick color; stalk unusually short for so large a fruit; indicating that it will not be liable to be blown from the tree by the wind, an important merit; eye very large, irregular, and very deeply sunk, cavity for seeds small; flesh yellowish white, juicy; flavor excellent, keeps till January; bears abundantly as a standard, and is certainly one of the very best apples in existence. It was raised at Seacliffe Gardens, near Prestonkirk, Scotland, by Mr. Arthur Calder, the gardener there.—*N. B. Jour. of Hort.*, p. 27.

Grafting Cacti.—Mr. J. C. Bidwell, of Tinana, New South Wales, recommends Cereus triangularis as being a superior stock for grafting the trailing kinds upon. He states it will bear great heat, considerable coolness, any amount of wet above ground, and in rich soil will make a shoot six feet from a cutting of six inches in one season. "My advice to gardeners in England who wish to procure gigantic specimens of slow-growing Cacti in a short space of time, is to procure plants of C. triangularis, plant them in any rich soil, give them plenty of heat and water; when high enough, stop the shoots, in order to make the angles thicker, and graft at a time when the stock is attempting vigorously to sprout at every eye. A graft of C. Mallisonii, three inches long, six months after, has seventeen shoots all pushing at the tips: eight of the largest are twelve to fifteen inches long, and none of the rest less than six inches." The original plant of C. Mallisonii, growing in the same place in the same time, barely replaced the shoot taken off to graft.—*Gard. Chron.*, p. 22.

Oxalis Bowei, in the open garden. "The earth was removed to the depth of two feet; I then introduced eight inches of drainage, laying on the top of it a layer of fresh turf, with the view of preventing the soil falling into the interstices. I then filled up the bed with equal parts of well-rolled turfy loam and leaf-mould intimately mixed together. In May I turned out the plants, and placed them so that the bulbs might be three inches below the surface. Thus circumstanced, I have never found them to receive any injury, with the exception of the foliage being destroyed by frost. They flower beautifully every autumn."—*Ibid. p.* 39.

Nursery Reform.—Mr. Rivers, in the last number of our excellent contemporary, the *Florist*, has successfully stripped of its rags one of the idols which the folly of collectors has set up for the admiration of simple gardeners. "Nothing in floriculture," he says most truly, "has marched so rapidly and steadily onward as an improved and common-sense taste for roses. It is only a few years since all the gardening world used to talk of the 2000 varieties of roses grown by the Messrs. Loddiges; and happy was the amateur who could beat his rival by a score or two of varieties; I mean varieties in name, and not in fact. In this we had, with our usual national weakness, copied our neighbors, the French, who will even now say to their English visitors, 'Ah, Monsieur, have you seen my new Rose?—*la voila!*' and then you will have pointed out to you a seedling from La Reine, with an accidental stripe on each petal; or a seedling from Madame Laffay, with smaller flowers than its parent: then takes place the following dialogue:

"*English Florist.* These are of no use, Monsieur; they are not distinct enough.

"*French Florist.* Monsieur, distinct! they are *new*.

"*E. F.* New or old, they are of no use, I tell you: have you a scarlet La Reine, or a yellow one, or a white Madame Laffay?

"*F. F.* Monsieur, *c'est impossible;* but stop!

I have fine new roses from La Reine, all suberb! *Voila* Perpetuelle, Coupe d'Hebe.

"*E. F.* Why, your seedlings are all pretty, but they are not distinct enough. But at what charge do you propose so sell these seedlings? for although of nearly the same color as their parent, I should like one or two if not too dear.

"*F. F.* Monsieur, *they are new.* What a horrible word is that 'distinct' of yours; I pray you do not use it. But for my seedlings I must have a high price, as I will deliver to you all the property in them; let me see, for No. 1 you must give 100*l.*; for No. 2, 125*l.*; for No. 3, 150*l.*

"*E. F.* Stop, stop, Monsieur! I will not give you one hundred shillings for your 'propriete;' they are not *distinct* enough.

"*F. F.* Monsieur, what a horrible word! it kills me."

It is satisfactory to find a man like Mr. RIVERS joining us in an attempt which we have so long been making, to persuade the world to distingush between selection and collection. We accept him as a stout recruit, from whom good service may be expected. His trade experience tells him much that we know nothing of; we suspect that it tells him, among other things, how unprofitable it is to swamp a nursery with things which only a few curious people ever ask for. Let us add that he has to some extent carried out his principle in the last edition of his sale catalogue, by cutting down the varieties with no sparing hand. For instance, he now offers for sale only 67 varieties of Hybrid Perpetual Roses; while a neighbor enumerates 110.

But why keep 67 of these varieties? Can it be said that among them there are 67 distinct peculiarities—of growth for instance, or foliage, or color, or form or season. And if there be, are the distinctions always of horticultural value? Assuredly not. No one who only regards the decoration of a garden can possibly want 67 sorts of Hybrid Perpetual Roses. A dozen of the best are worth all the remainder. The object of the gardener should be to obtain the finest possible result by the simplest and most unexpensive means. Let us suppose that he has space for 60 roses; if he plants 60, so called different sorts, he will produce an effect about as good as that of an old-fashioned patchwork quilt. No skill can combine such materials into a harmonious whole. But suppose he takes half a dozen of the finest growers, the longest bloomers, and the most distinct colors; with these he may really exercise what skill he possesses in creating a brilliant scene. Mr. RIVERS himself points this out:—"Amateurs are not now content with mixed beds of roses; all our finer sorts are planted in masses; thus, in some rose-gardens formed this season, the beds are made to contain from 50 to 60 plants each; in olden times, these would each have had 50 varieties, forming a patchwork of color; now they are arranged so as to form masses of distinct colors. Thus, No. 1 is Baronne Prevost; No. 2, Doctor Marx; No. 3, Madame Aimee; No. 4, Geant des Batailles, and so on; now these crimson and blush and rose-colored large groups must have a fine effect." Cerainly they must; and an effect that not only cannot be rivalled, but cannot be even imitated by any higgledy-piggledy arrangement whatsoever. Let us hope, then, that the intelligent rose-growers will combine to carry out this principle of selection, saving themselves much trouble and loss, and their customers endless vexation and annoyance. For who is to know what to select from a legion of queer names? or how to produce a beautiful effect with materials of whose quality he cannot possibly have any knowledge?

We have often urged this point upon the consideration of the trade, and we are glad to see that the force of our arguments is beginning to be felt. In the majority of the lists this year, issued by the most considerable nursery and seedsmen, a very appreciable reduction has been made in the names of varieties offered for sale. Men are beginning to see the impropriety of mystifying their customers, and we may add the unprofitableness of it. But nothing like enough has yet been done. Annuals, hardy plants, green-house plants, hot-house plants, Orchids, all the race of florists' flowers, and fruit trees of every description, are quite as much in want of the weeder as roses and kitchen garden stuff. Of what possible advantange, for instance, to any one in Great Britain can be the 1,400 sorts of apples, or 677 of pears, or 89 of figs, or 182 of grapes, or 360 of gooseberries, enumerated in the last edition of the Horticultural Society's "Catalogue of Fruits." Why, fifty apples, five-and-twenty pears, half-a-dozen figs, a dozen grapes, and as many gooseberries, answer every purpose—except that of curiosity. The remainder may as well be consigned to the rubbish heap.

We know how unpalatable these truths will prove to some of our enthusiastic friends, who cling to their collections with as much tenacity as a lawyer to old statutes, or a venerable lady to still more ancient china; but we entertain no doubt that they are becoming rapidly acknowledged as truths all over the country, and that the interest of every man consists in their recognition. In former days, the object was to have something *new;* the purpose now-a-days is to obtain something BETTER; *variety* is not the presnt consideration, an anxions desire for IMPROVEMENT has taken its place; and long may its place be thus occupied. Time is rapidly proving that the fancies of our predecessors must give way before the utilitarianism of this age, and that to maintain the former has become as undesirable as it is impossible.—*Gardeners' Chronicle.*

HOTHOUSES IN THE TIME OF THE ROMANS; BY M. DUREAU DE LA MALLE.—In the memoir a short time since read to the Academy upon the

subject of Roman hothouses and pits, heated artificially, I omitted several quotations which proved my statements, and they have consequently been impugned. My first authority is Columella (XI., 3, 51, 53.) Tiberius being in ill health, was advised to eat cucumbers every day. The Roman gardeners cultivated these vegetables in frames, containing hot dung, and exposed to the sun in front of a wall. The frames were, moreover, on wheels, so as to be easily moved into, and continually placed in the sun's rays, and were, in addition, furnished with pieces of talc, by which they were covered at night, and by which the plants were protected from frost and cold. "Thanks to this invention," says Columella, "Tiberius was supplied with cucumbers at nearly every season of the year (*fere toto anno.*") Martial (VIII., 14,) the contemporary of Domitian, who had in his palace a hothouse, containing exotic plants, called Adonea, describes a glass hothouse, belonging to one of his patrons, which was set apart for similar plants, as follows, in one of his Epigrams:—"As you are afraid that your pale fruit trees, natives of Cilicia, cannot withstand the winter, and that a too cold wind may nip your delicate shrubs, you take care that by panes of talc the chilly wintry blast may be kept off, and that nothing be admitted but sun and a genial air; and yet I have nothing but a miserable lodging, with a window that does not fit, and where Boreas himself would not find a habitation. Is it thus, cruel man, that you lodge an old friend! I had much rather be the guest of your tree!" The use of some heating apparatus is here clearly referred to; but Seneca (Letter 122) tells us that the Roman hothouses were heated by steam. He denounces the unbridled luxury of his contemporaries. "Do not those live contrary to nature who require roses in winter, and who. by the use of hot water, and application of heat, compel the lily to blossom in winter, instead of in the spring?" It is remarkable that the most direct evidence of the use of hothouses by the Romans should be furnished by a poet and a philosopher.—*Comptes Rendus.*

London Hort. Society.—The event of the past week has been the second show of the Horticultural Society at Chiswick. A sunless but dry day brought together 9383 visitors, forming such an assemblage of rank and fashion as is to be seen in these gardens only, in the open air, near London. At an early hour the exhibition had the distinguished honor of being inspected by her Royal Highness the Duchess of Orleans.

In speaking of the objects presented for examination, we can do little more than repeat what we have said on recent occasions, namely, that the great and important feature of the exhibition was the total absence of ill-cultivated specimens. There were various degrees of excellence, but everything was excellent in its way. We may even add that the worst plants exhibited last Saturday would have swept away the first prizes 20 years ago. The miserable penny-pressed Pansy flowers, which once collected a crowd of simple admirers, would now be considered a disgrace to the place, and are satisfactorily represented by well cultivated specimens in pots. The gawky straggling half-starved sticks, first exhibited as roses grown in pots, are replaced by plants of exquisite beauty prepared with unrivalled skill. And let us add, in justice to one class of exhibitors, even the Cape Heaths, which were for so many years produced in silly imitation of beehives, or Hottentot kraals, have at last been permitted to assume their natural forms. The pruning-knife, in moderation, has taken the place of the shears with which some innocent gardeners thought it necessary to clip their bushes into shape (!), and the genus Erica now merits, for its beauty, the high place in these exhibitions which was once given it merely because of the difficulty attending its cultivation.

As to Orchids, the fondness for them is evidently extending; new and good exhibitors are threatening the ancient lords of the region of epiphytes; and we have no doubt that in a few years the sanguine expectations of our friend "Dodman" will be realised, through the instrumentality of Mr. Williams' capital practical papers, now appearing weekly in our columns. The continual sales by auction of these plants afford opportunities of purchase suitable to the means of different classes of buyers, and it is not extravagant to predict that Orchids will some day be as common as Heaths and Pelargoniums. It is not impossible indeed that they may dislodge the latter, admiration of whose tawdry charms is more and more clearly on the decline.

As usual Messrs. Veitch, of Exeter, stood pre-eminent among the exhibitors of new or rare plants. Their exhibition of Pitcher plants was one of the most remarkable sights that have yet been chronicled in the annals of Horticulture. Some, the Nepenthes, from the forests of the Indian Ocean, threw abroad their tendrils, and suspended their curious bags of green and crimson and white by whatever they could cling to. Others, the Sarracenias, from the swamps of North America, stood erect, like living trumpets, or imitating ewers and jugs of green and crimson; even while the spectator was looking at them, the unhappy fly might be seen entrapped amongst the relentless teeth with which the recesses of these cups are guarded. The most curious of all, perhaps, and the most beautiful in form, was the Cephalote, from the Australian bogs, whose delicate goblets reared their richly-carved and many-tinted crests above their bed of moss. No one in the world except Mr. Veitch could produce such an exhibition as this. He had also a new yellow shrubby Calceolaria, with leaves like a Peach-tree; a curious Aster-like plant from New Zealand, said to be a hardy evergreen shrub; and the Eucalyptus coccifera of Van

Diemen's Land, a tree with glaucous leaves and an abundance of large white flowers, which has lived without injury for several years at Exeter in the open ground, where it is now 20 feet high.

New hybrid plants are slow in appearing. The only one which caught our eye was a hybrid Pelargonium obtained between the lemon-scented (*Citriodorum*) and one of the Fancies, by Mr. Thomas Kempster, of Blackheath. His object was to add good flowers to sweet foliage, and we are glad to see that he is evidently on the road to success; the specimen exhibited was very pretty, and was accompanied by a cross between Radula and Rollisson's Unique, which we also look upon as a good beginning. If growers would but persevere in this way they would soon strike a rich vein, and occupy themselves more profitably in every sense, than in trying for results which only end in running out their breed. What is wanted among Pelargoniums is new blood, of which the wild species can furnish an abundance.

Among miscellaneous objects, was a remarkable collection from Syon, consisting of a tree bearing ripe nutmegs; a branch of Vanilla with flowers, and ripe as well as unripe pods; a Gamboge-tree, with rich orange fruit; and a piece of the Serpent Trichosanth (*Trichosanthes colubrina*,) loaded with its long striped and twisted Cucumbers.

Of Mr. Hosea Waterer's magnificent display of American plants in the Society's Garden, we spoke at length last week. On this occasion it was open to all visitors, throngs of whom were gratified by one of the most varied and beautiful spectacles which the gorgeous varieties of Rhododendron and Azalea can produce. Under the influence of the beauty of so grand a scene the clumsiness of the awning which screened it from the weather was hardly remarked. A few hours however after the close of the meeting this awning gave way before a gale of wind, and it became necessary to close the ground for some days, till it could be repaired. This has naturally given rise to expressions of surprise, and to inquiries, which we take this opportunity of answering, by stating that the awning in question (not furnished by Mr. Edgington) was contracted for by the gentleman lately removed from his office of Secretary by the Fellows of the Horticultural Society, at their anniversary meeting; and that the contract was made, not only without the concurrence of the proper officer, but in opposition to all experience and remonstrance.—*Gardeners' Chronicle.*

Russian mode of Preserving Green Peas for winter use.—The peas to be preserved are chosen full grown, but before they become at all farinaceous; they are carefully shelled, and all damaged ones are picked out rom the sound ones; the peas are then thrown into water whilst boiling on the fire; the instant the water resumes the boil after immersion of the peas, it is expeditiously strained off from them, the peas are then immediately spread upon a cloth and turned over on it till all loose moisture has been soaked up; the peas are then dried gently in the coolest part of a Russian oven-like fireplace. Green French beans are dried in precisely the same manner, but the pods require to be cut into narrow strips previously to scalding them. Both green peas and green French beans dried are sold at a very moderate price at St. Petersburgh. When either of them is to be prepared for table, they are soaked for a short time in lukewarm water, just enough to cover them, then gently stewed in it, with the addition of either gravy or a white sauce, and seasoned with sugar as well as salt and spices. Green peas for winter use have been perfectly kept in England by simply bottling them like green gooseberries, but much care is required in the process to avoid different sources of putrefaction, such as damaged peas and moisture. Green French beans may be preserved till winter by keeping them in brine just strong enough to float an egg; the beans must be entire and without blemish. In preparing them for the table they should be washed in warm water; if then found salter than desirable, they should be soaked two or three hours in lukewarm water, before being put into that in which they are to be either boiled or stewed. Green rye is also dried in Russia, is esteemed a great delicacy, and sells in St. Petersburgh for eight or ten times the price by weight of either green peas or green haricot dried.—*Gard. Chronicle.*

Preserving Fruit.—We have frequently been asked, what is the best mode of preserving fruit, and whether there are not chemical means of keeping it, so that it may be preserved fresh and wholly unchanged for a long time; either by placing it in contact with some substance which shall counteract its tendency to spoil, or by plunging it in some gas or liquid which will prevent it from decomposing. There have been a great many attempts to do this, but they have all been attended with but very partial success. Fruit, for the most part, consists chiefly of sugar, gum, starch, cellular matter, water, and a small quantity of albumen and gluten; but besides all these, it also contains certain other substances, such as coloring matter, and a small quanity of some highly fragrant volatile oil, to which the taste and agreeable smell of the fruit is due. The most changeable component of fruit, therefore, is the azotised matter, which is generally that which first of all commences to decompose; usually, too, air is necessary to its change, and consequently those fruits which have thick dense skins, dry and shrivel up, when they are kept, without being spoilt. In drying, of course they lose some portion of the volatile flavoring matter, but they also retain some, and they may be kept for a long time, without their either putrifying or fermenting. The more delicate and highly flavored fruits, how-

ever, are not of this description; their skins are so porous and open, that they very soon allow the air to pass into the interior of the fruit, and consequently it is impossible to preserve them by drying.

The immediate consequence of air coming in contact with the pulpy matter of ripe fruit, is that the azotised matters begin to absorb oxygen, and decompose; then the sugar, starch, and gum are acted on; the flavor is rapidly destroyed, sometimes spirit is formed, the sugar simply undergoing the vinous fermentation; at other times, the change goes on more rapidly, and the fruit soon becomes putrid. All these effects may be easily observed, by watching the ripening of any of the common varieties of fruit. The drying up of ripe grapes, which are left to hang with their skins uninjured, and the immediate change which occurs if the skin is injured or punctured, is familiar to every one. The rapid change which takes place in ripe Gooseberries, when the skins burst, and which, in the first instance, is a mere case of common vinous fermentation, is also well known. The injury which all fruit sustains from bruises, though it often does not produce the same effect, is yet in chemical nature very similar to that which occurs in the gooseberry. The cause of the evil in all cases is the oxygen of the air; and the mode in which it acts consists in the skin or cuticle being destroyed or injured, so that the air finds an easy entrance through the damaged part. In the case of delicate and thin skinned fruits, they are so porous that the air enters on all sides, as soon as they are fully ripe, and even though they are not in any way injured, and this constitutes the chief difficulty in preserving them.

The fresh juice of the grape readily ferments, as soon as it is exposed to the air, but the juice of a raisin or half dried grape no longer has the power of doing so, because it contains too much sugar to ferment. A weak solution of sugar, under favorable conditions, soon begins to ferment; whilst a strong one is unable to enter into the vinous fermentation. It is in part, on this fact, that the common mode of preserving fruits by means of sugar depends. In making preserves, too, the fruit is heated, and heat, by rendering the vegetable albumen solid, makes it less likely to decompose. The preservative influence of heat on all forms of organic matter is well known; the value of heat in preventing the decomposition of food generally, was minutely detailed by Apport in 1810, for which he was rewarded by the French Government with a sum of twelve thousand francs.

But both heat and sugar, though no doubt very useful agents in the preservation of fruit, are very far from being quite satisfactory; and though, by their use, the fruit may be prevented from undergoing actual fermentation, yet more or less of the flavoring matter of the fruit is always destroyed or lost. What is wanted is a means of preventing the decomposition of the fruit, without the use of any substance which could injure its flavor, either by the addition of a new flavor or the destruction of the natural one. After what has been done already in the storing and preservation of some sorts of fruit, and the improved modes of keeping it which have been devised, we do not altogether despair of a satisfactory mode of preserving the more delicate kinds being discovered, although most of the recorded experiments which have been made with that view are certainly not very encouraging. The experiments usually referred to on the preservation of fruit by chemical means, are some which were made by Dr. Henry in 1776, and described in the fourth volume of Dr. Priestley's "Essays on Air." The fruit in these experiments was suspended in carbonic acid, so that it was kept in an atmosphere containing no free oxygen. A bunch of grapes exposed to carbonic acid remained fresh and plump for six weeks, whilst a corresponding bunch placed near it in a similar vessel, containing common air, was quite mouldy in three weeks. A second experiment was made with some ripe and rather stale strawberries, which had been gathered the day before; the following day those which were exposed to the air had lost their taste, whilst the fruit kept in carbonic acid, "had become more dry, but was fragant and well tasted; their fragrancy was even thought to be improved." On the fourth day, those in air became quite musty and mouldy, whilst those in carbonic acid were some of them firm, and had still a moderate degree of flavor at the end of eight days.

In this experiment of Dr. Henry's there are two points which were decidedly against the preservation of the fruit, namely, that the fruit was already stale at the commencement of the trial, and that the carbonic acid employed was not pure, but contained common air. A number of similar experiments have since been made, the general result of which has been, that though the fruit kept well, it wholly lost its flavor; but we do not think that there is any reason to despair of ultimate success. It is plain, from all the trials which have been made, that it is easy to prevent the decay or fermentation of fruit; the difficulty is rather to preserve its fine flavor, and prevent it from becoming tasteless and insipid. When an apple is bruised, the part thus injured soon turns brown, decay commences, it becomes mouldy, and the whole fruit soon rots; and this decay easily spreads from one apple to another. If a little hole is cut through the skin of a sound apple, and a small piece of a rotton one is inserted under the skin, the sound fruit will soon be brought into a state of decay; but if this is done in a jar of carbonic acid, no such effect will take place—the sound apple will remain fresh, even though there is a portion of decayed apple in contact with it. The flavor of fruit is apt to be spoilt, not merely from the loss of the peculiar volatile oil which it contains, but

likewise from the absorption of other volatile substances; for fruit of all descriptions has a very remarkable power of absorbing odorous matters of various kinds.

Amongst the many plans for preserving fruit which have been described, and which more or less depend in principle on the exclusion of air, such as packing it in close sealed vessels, wrapping in fine paper, covering the ends of the stalks with sealing-wax, or arranging it in boxes filled with thoroughly dry sand, bran, straw, fern, or other similar substance, the greatest care in all cases must be taken that the packing material has no odor; for if it has, the fruit, besides losing a portion of its own natural aroma, will acquire some of the odor of the packing material, and the delicate flavor of the fruit, and consequently its value, will be destroyed. On the other hand, when fruit is preserved by cold, and especially when for this purpose it is gathered before it is perfectly ripe, it is often found that on removing it from the ice-house or cold well in which it has been preserved, though at first it has but little flavor, yet that on gently warming it and keeping it a few days, the flavor improves and decidedly increases. This and other similar facts may fairly lead to the consideration, whether the odor and flavor of fruit which has been preserved some time in carbonic acid, nitrogen, or hydrogen, and which has in consequence become deteriorated, is, in truth, really altogether destroyed; and whether it might not be possible to recover the whole, or at least a portion, of the lost flavor?

The absorption of manure, or rather manner in which plants fed with very strong manures acquire a peculiar and often very disagreeable flavor in consequence; and also the curious way in which the odor of flowers is sometimes modified by the absorption of particular substances, are probably also examples of the facility with which vegetables absorb odorous substances. Concerning the formation of odors by plants, very little indeed is known. There are, however, a number of curious facts bearing upon the subject, and showing how volatile odors, closely resembling those secreted by plants, are sometimes formed in the most unexpected manner. Thus, for example, in the process of bleaching rags by chlorine for making paper, it frequently happens that the bleached pulp has precisely the odor of ripe apples; this is evidently due to the presence of some substance formed by the action of the chlorine.—*Gard. Chronivle.*

New Tree Pæonies.—We have lately received from Mr. Verschaffelt, of Ghent, flowers of two tree Pæonies of admirable beauty.

They were intended for exhibition in London, but would not keep for that purpose.

One was rosy pink, large, and uncommonly showy because of the very fine color of the flowers. When full blown they measured 7 inches across; but in this state they showed quantities of stamens in the centre, and some of the petals, though all of good substance, were much longer than the others, giving the general aspect of the flower a somewhat ragged appearance.

The other was French white, shading off into rose at the base of the petals, and rather smaller, but more double and regular, and consequently more compact, holding together well, even after it had been cut a very long time. Both kinds were exceedingly handsome, as all tree Pæonies are. A well grown specimen ornamented with such flowers in even tolerable profusion must produce a magnificent display.

We understand that these were produced by Mr. Charles Goethals, a gentleman residing at Ghent. The darker kind, called Gloria Belgarum, is described in the "Journal d'Horticulture Pratique," as a seedling which, in 1844, had flowered for five successive years, and at that time was producing blossoms at least 10 inches in diameter; a single plant bearing seven of them. It would seem that they are now appearing in great abundance, Mr. Verschaffelt having been able to forward four of them. Certainly these Moutans are among the finest we have ever seen.—*Gard. Chronicle.*

The Acuminate Onion.—A few bulbs of this charming plant were sent from California to the Horticultural Society, by Mr. Hartweg, and flowered last spring in the Chiswick Garden, in a greenhouse. It is, however, in all probability, hardy, if kept in a place dry in winter. The name onion conveys to an English ear ideas of anything but beauty, for many common species are as ugly as plants well can be, and the handsome kinds are almost unknown in gardens. Nevertheless, in a genus consisting of nearly a couple of hundred species, many may be found which ought to take rank with hyacinths and jonquils; of these, the moly and the magical onion are well-known examples, though now-a-days confined to curious collections; and the rare species here figured is another, much handsomer than either, and probably the queen of the family. Its gay flowers, almost transparent when colorless, and stained with the richest rose color near the points, can scarcely be regarded as inferior in beauty to the Guernsey lily itself, and they are far less fugitive. Were it permitted to suppose that a plant so similar to onions in most respects could form a separate genus, one would be tempted to place this apart, for it wants their smell, and is most remarkable for its petals being considerably smaller than the sepals. But no other difference being perceptible, we must believe it to belong to the group of which allium roseum forms one. At first sight it would seem to differ from the acuminate allium described by Sir W. Hooker, in his "Flora-Boreali-Americana," in the absence of toothings from the petals, in the smallness of those parts, and in stature; being a much larger and more handsome plant than Sir W. Hooker's figure represents.—*Paxton's Flower Garden.*

Domestic Notices.

THE PRIZE STRAWBERRY.—The prize of $100, offered some three years ago by the Cincinnati Hort. Society, has been awarded this season to Mr. McAVOY, a cultivator of that vicinity. As Cincinnati is noted as the finest strawberry market in America, and as the horticulturists there are especially acute in strawberry lore, we naturally look for great merit in this prize production doubly endorsed. The fruit committee, in their report, speak of it as follows:

"McAVOY's No. 12 Seedling, we propose to call *McAvoy's Superior*; the specimens exhibited are superior to Hovey's Seedling, or any other strawberry that came under the examination of the committee, and it is entitled to the premium of $100 offered by this society in 1847."

SEEDLING APRICOTS.—It is not a little remarkable, that numerous as are the fine varieties of peaches originated in this country, many of them so much better adapted to our climate than any of foreign origin, no one appears to have taken any pains with originating superior new apricots. The only native seedling of any mark that we know—Dubois' Early Golden—is far hardier, and more productive than any foreign sort, if we except the Breda. and there cannot be a doubt that a little pains taken in raising apricot seedlings, would reward us with fine new sorts of this agreeable mid-summer fruit, which would thrive with half the care now bestowed on European sorts—most of which are of tender origin.

At the present time, the apricot seems to succeed better in portions of Virginia, than in almost any part of the Union.

GIGANTIC STRAWBERRIES.—We understand from an eye-witness, that Mr. PELL, at his celebrated orchard farm, Pelham, on the Hudson, has raised the largest strawberries ever grown in the country. The variety was Hovey's Seedling. The largest berry weighed 2 ounces, and measured 8¼ inches in circumference. We hope Mr. PELL will give our readers the key to this mammoth size—as we understand it is the result of careful experiment.

POMOLOGICAL CONVENTION.—*Dear Sir:* In reading the pages of the July Horticulturist, I notice you speak of the next Pomological Congress to be held at Philadelphia *this* coming fall. As this is undoubtedly an oversight on your part, and might not be noticed, without your attention was drawn to it by some one, I desire to remind you, that the meeting at Philadelphia is to be held in *the autumn of* 1852. Yours respectfully, F. R. ELLIOTT. *Cleveland, O., July* 8, 1851. [We thank Mr. E. for correcting the error into which we had inadvertantly fallen. ED.]

CURCULIO EXTIRPATOR.—A. J. DOWNING, Esq.: It has been the study of a great many practical men and amateurs, of late years, to devise some means for the destruction of the curculio; but as yet, I believe, with no considerable degree of success. Although I have read in your Journal the reports of various gentlemen, stating their entire success in extirpating this insect, I am led to believe their discoveries have not led to any general results.

I have never as yet seen in the writings of any persons on this subject, any invitation to visit their place, for the public to be convinced of their success. The depredations of this worst of all pest, have attained such a magnitude that I think any party claiming to be able to subdue the curculio, should offer proofs of their theory by saying, "come and see, and believe." Occular demonstration is satisfactory to all parties. This I suggest, because then no one will be led astray.

I will now, state to you my experience with the curculio. Being gardener for near 7 years, for Col. T. H. PERKINS, Brookline, Mass., one of the best and most extensive private gardens in the country, I was, while there, indefatigable in my exertions to find out some method to exterminate the curculio, but without avail.

In the year 1848, I left that place, and went south and west. During all that time, the destruction of the curculio was my principal object. I was last summer gardener upon the place of Mr. LONGWORTH, and I can with truth assert that there was not two dozen of sound

plums in his whole establishment for the year. Leaving west, I came to New-York, and obtained a situation with W. C. Langley, Esq., a patron and friend of horticulture, and a gentleman who has spared no expense in furnishing his establishment with the choicest fruits—the plum in particular. Here I again commenced my labors, and I am happy to say, with perfect success; and as mere assertion is worth little, I invite all unbelievers, as well as inquirers, to occular demonstration.

Mr. Langley has an extensive and beautiful plum orchard, and this year in particular, it was loaded with fruit, all the trees bearing about equally. For an experiment, I commenced the application with a quill, of a *new composition*, on *three* trees. The result is worthy of being seen. There is not a plum in the orchard, except on these three trees, they having fallen off, destroyed by the insect. To one of the three I shall be obliged to apply props, otherwise it will break down. I can only add, that I am convinced that my composition is a radical exterminator. I shall keep its nature private until practical men, and others interested, are satisfied. Mr. Langley's place will be open for the public to examine for themselves, after which my receipt shall be open to the world. The compound for 100 trees would not cost over eight dollars. It is applied with a syringe. I am sir, your humble servt., Wm. Quant, *Gardener to W. C. Langley, Esq., 3d Avenue. Long Island, July* 12, 1851.

Sweet Potatoe Culture.—Sir: The sweet potato forms a very important article of provision on the southern plantations. It is so subject to rot—even by the 1st of January—that it is much less planted than would otherwise be the case. There are various modes adopted to preserve them, yet none giving entire assurance. It has struck me that some way might be adopted of kiln-drying them. This would reduce them greatly in bulk, by ridding them of water—the principal cause of their decay. They would thus be brought to a state easily convertible into a flour.

This notion first suggested itself to me in the famine year, when a good deal of Indian corn was kiln-dried to stand a voyage to Ireland.

I do not think I exaggerate, when I consider it a matter of national importance, and upon this ground beg that you will turn it in your mind. Should you be at fault, a suggestion in your paper would bring out some of your correspondents upon the two points—

Is the scheme a practicable one? If so, what mode of preparation would best accomplish it?

I do not give my name—it would add nothing to the importance of the subject, nor ought it to do so.

I send this to your paper, as—taking it—I shall see anything you may say on the subject. *Charleston, S. C., June* 10, 1851.

We shall be glad to hear from correspondents who have information to communicate on this subject. Ed.

Peach Trees—The Effect of Shortening-in.—Last winter we tried the experiment of shortening-in the branches of a portion of a peach tree, and leaving the remainder untouched, in order more fully to test the beneficial effects of the practice, and give an occular demonstration of the difference, if any should appear, resulting from the operation, to all who might witness the result. The blossoms on the branches shortened-in, came out from a week to ten days earlier, and the fruit at the time of writing, is at least one-third larger than that on branches left in their natural state. The new growth of wood on the shortened branches is of a more vigorous and finer character, and will probably acquire a greater degree of hardiness. to enable it to withstand the vigor of the coming winter.

But this, too, is labor, and being so, it will be an objection with many to any further attempts to raise peaches. Yet it is a labor of pleasure, if not of profit, to all who wish to enjoy the satisfaction of seeing nature yielding to their control, and nature perfecting herself under their influence. To those who have pleasure of tasting rich fruit of their own raising, and plucking it in delicious freshness from the tree, it will be but a *light service*, compared with emptying their pockets to purchase the fruits of other climes, too often gathered in a crude and immature state, in order to enable them to survive transportation, and contracting insipidity and decay in every step of their journeying.

We might before have remarked, for the benefit of the inexperienced, (if any of your rea-

ders are more so than myself,) that in shortening we are sure to cut down to sound and vigorous wood, such as has not and will not winter-kill, and through which the sap will commence a healthy and vigorous growth in spring. Hence we take off rather more than the last growth of the season. If the work is delayed until February or March, we cut down to where the buds are healthful and strong. Y'rs truly, W. Bacon. *Richmond, Mass., July* 7, 1851.

A. J. Downing, Esq.—Dear Sir: I should not venture to address you, but for two encouragements, (very faint ones *to me*, to be sure, but still encouragements,) which I find in the pages of the Horticulturist. One of these is your promise to answer all questions of your subscribers, *if put in a brief form*. Alas for me then! but—I have a question to ask. The other is your invitation to "Horticulturists and Amateurs to contribute Essays, Papers, or Rough Notes of Experience." Now, I am too ignorant for a horticulturist, but if amateur means a lover of flowers, (roses especially) I am one, most certainly; and I must detail my experience, in order to ask my question.

Two years since, I came in possession of four roses; the Fellenberg, Louis Philippe, Queen of Naples, and Gloire de France. These I planted out on the north side of the house, in the only place which could then be spared for them. I was instructed to cut them all down to within a short distance of the ground, on the approach of cold weather, but they grew so beautifully during the summer, that when autumn came I could not bear the thought of cutting them down. I therefore, took up the Fellenberg, and covered the rest carefully with straw, and placed a box over them. When I uncovered them in the spring, I found that the Queen of Naples and Louis Phillippe had each sent a shoot from the root, some six inches in length, which, for want of air, had died and moulded. These were covered too early, and with too much straw; so I had learned something from experience. On close examination, I found that the Queen of Naples was entirely dead, the Louis Phillipe showed one bud close to the root, while the Gloire de France, more hardy than either, exhibited quite a healthy looking stem. I now removed them to a bed which had been prepared on the east side of the house, and added to them the Souvenir de Malmaison, White *Monthly* Moss Rose, (I have my doubts about its being a monthly,) Chromatella, and Gloire de Rosamene. The Louis Phillippe grew a few inches, then a careless boy snapped the top off with his whip-lash, and it never came up again. The Gloire de France gradually died down to the root, then sent up one small sickly sprout, which grew an inch, and then stopped. I dug away the earth from the roots, and filled in with chip dirt, watering it plentifully, and it soon began to grow. The Souvenir de Malmaison was killed about as soon as I had it, by a great black bug, which gnawed into the heart of the root. I resolved to cover the roots with tan-bark this winter, but as they make no more scruple of disappointing ladies in the west, (this part of it, at least,) than others, my tan-bark did not come to hand; so I twisted straw carefully about the the stems, and about the middle of our very mild winter, all except the Moss Rose were covered with boxes, so placed as to admit plenty of air. This spring I found my Moss Rose entirely uninjured,—my two Glories, (of France and Rosamene,) at once sent up strong shoots from the roots; but my Chromatella—no, that too, is alive! A very small tuft of leaves made their appearance three inches up the stem. But in a very few days, to my dismay, these leaves began to droop. In my alarm I took it up, (breaking several long strong roots in the operation,) but could discover nothing which should cause its death. A foot from where it stood, and within two inches of my Moss Rose, a very small *something* made its appearance when the leaves first began to droop, and growing with amazing rapidity, soon showed unmistable proofs of its origin. I had not, then, lost my Chromatella. It is now seven feet high, and still growing at the rate of an inch a day. Now, Mr. Downing, *must* I cut down this splendid plant? Is there no way to save it? It has not blossomed yet, and I fear it will not this year. And my others, too, growing and blossoming beautifully as they are, *must* they all come down? If you will give me some advice about them, you will confer a very, *very* great favor on *A Subscriber at the West. July* 7, 1851.

We shall be glad, if possible, to give our fair correspondent in Illinois some consolation

against the winter severity upon her roses, and for that purpose, must state the following.

Two things are very essential to enable a half hardy plant to stand the winter. The first is, that there shall be no sappy immature wood, and the second, that the entire plant, (root especially,) shall be kept dry in winter. To secure the first, the ends of the long shoots should be pinched off, to stop their further growth, about the middle of September. This will cause the shoots to harden and ripen. To secure the second point, the border or bed should have a good drainage—either natural or artificial. Afterwards, at the approach of winter, our correspondent will strip off any leaves remaining on the shoots of the rose, bind down the long branches, and cover the whole plant, including them, entirely over with dry tan-bark —say to the depth of a foot and a half above the surface of the ground if necessary, and finally lay boards over the hillock of tan in such a way as to shed all the storms of winter, we think she will find her roses quite uninjured when she uncovers them in the spring. Ed.

Notes on Richmond Park.—Will you permit me with the greatest respect, to correct what appears to be an error in one of your most interesting letters on the parks of London, which has been copied into several of the papers. It is regarding the spot where Henry the 8th is said to have waited, for the signal of Anne Boleyn's execution. I never before heard of its being in Richmond Park, although that version of the legend has, since I saw your letter, been repeated to me by two young Englishmen. I, who lived in London some thirty years, always understood it was in Epping Forest, much nearer the Tower than Richmond, at which last, I very much doubt whether the small guns of the period, could have been heard, unless under particular circumstances of the air and wind. The story however, although highly probable is not mentioned by Hollingshead, Hall or Fabyn, nor in Miss Strickland's life of Anne, all of which I have consulted. It is however given in one of the very useful pictorial folios published by C. Knight & Co., and also in that volume of the Edinburgh Cabinet Library wherein the life of Henry occurs, written by Patrick Fraser Tyler—no mean authority, although he gives it as a *tradition;* I beg leave to inclose the following extract from the work for your further information. "That Henry waited with unfeeling impatience for the death of Anne is certain; and a tradition is yet preserved in Epping Forest, which strikingly illustrates this fact. On the morning of the day which was to be her last, he went to hunt in that district, and as he breakfasted, surrounded by his train and his hounds, under a spreading oak which is still shown, he listened from time to time with a look of intense anxiety. At length the sound of a distant gun boomed through the wood. It was a preconcerted signal, and marked the moment when the execution was completed. 'Ah, ah! it is done,' said he, starting up, 'the business is done; uncouple the dogs and let us follow the sport.' On the succeeding morning he was married to Jane Seymour."—vide life of King Henry the eighth, by P. F. Tytler—Edin. 1837—p. 383, Edinburg Cabinet Library. I have my doubts whether Richmond Park ever was a hunting ground—but Epping Forest was, from the earliest records, and so continues to the present day, or *did*, until within a few years—and an annual hunt according to charter, was always given on Easter Monday to all citizens of London who chose to attend it. Your obd't. servt. Robert Balmanno. *N. Y., June* 27, 1851.

Prairie Rose—Mrs. Hovey.—I noticed, in a former number of the Horticulturist, that a doubt was expressed by one of its contributors whether this fine rose was ever white, as it has been represented. In our correction of this doubt we deemed it desirable to wait for the present blooming; we find some of our plants have borne flowers of the purest white, while others have at the same time produced flowers of a very pale blush. Our experiment also coincides with that of Joshua Pierce, of Washington, the originator of this variety. Under date of May 9, 1851, he writes us, "by reference to my first year's notice I find No. 41 (Mrs. Hovey,) marked *fine white;* again another year it is marked *very pale blush.*" It thus seems clear that this rose is somewhat inconstant, but by the right mode of cultivation can undoubtedly be produced uniformly white. The soil of Syracuse and western New-York is probably unpropitious. The facts respecting

this rose readily suggest the thought that it is inexpedient to pronounce wrong any description of a flower so variable as the rose, particularly when the difference is so slight as between white and very pale blush. The same remark may apply to many other flowers which being neither of a distinct genus or species but simply varieties or sports, are liable to great changes. S. B. P. *Flushing*, 7 *mo.* 16, 1851.

ALBANY AND RENSSELAER HORT. SOCIETY.—The first exhibition of this Society was held on the 25th and 26th of June. It had been appointed for the 18th and 19th of the month, but on account of the backwardness of the season, was postponed for a week. At the latter time there was a fine display of strawberries, a few samples of cherries, (the crop in general not being sufficiently matured to exhibit,) a fair show of early vegetables, and handsome collections of roses from two or three individuals. But in most departments, the competition was much more limited than usual. Of strawberries, Burr's New Pine was, as last year, deemed of the first quality. An extraordinary sample of Ross's Phœnix was presented by Mrs. C. P. Williams of this city. They measured, on the average, four and three-fourths inches in circumference. They grew on what was, a few years since, raw blue clay, but which has lately been made rich and mellow by manure. Dr. March offered some very handsome samples of the Black Tartarian cherry. A seedling cherry, offered by Mrs. E. C. Cobb, attracted much attention. It is of the May-duke character, perhaps somewhat earlier than that variety, large, and very pleasant. It is worthy of examination in future seasons. A seedling was also offered by Mr. B. B. Kirtland, which has been before exhibited, and deemed entitled to favorable notice. It is of fine flavor, and for several years has been very productive. It is a light colored cherry, ripening with the Black Tartarian.

The second exhibition was held on the 9th of July. The general display, though limited in comparison with some previous exhibitions, was respectable, and in some respects highly creditable. The time was several days too late for most kinds of cherries—the warm damp weather of the preceding week having swept off most of those which were fully ripe. There was still some fine specimens of Black Tartarian—especially those offered by Mr. Elisha Dorr, Albany, and Mr. E. C. Aiken, Greenbush. Handsome samples of several other choice kinds were offered by Messrs. Douw, Rathbone, Willson, Platte, and Mayell. Gooseberries of all the most noted kinds were exhibited, and they were generally in better perfection than for previous years. The specimens offered by Messrs. Douw, Wilson, John S. Goold, Mayell, Dorr, and others, were very fine. There were some excellent samples of raspberries—especially the Red Antwerp, Fastolff, and the Black and Yellow Ohio Everbearing, shown by John S. Goold. Mr. Goold also offered samples of four kinds of strawberries—the only ones offered. Knight's Sweet Currant, shown by James Wilson, was deemed, as it has been in several previous years, the best offered. The Cherry Currant is larger, but the bunches are shorter, and the fruit more acid. Several handsome specimens of the Christiana Melon, well ripened, were offered at this and the former exhibition, by Messrs. Douw and Rathbone. There was a good display of vegetables, embracing potatoes, cauliflowers, cabbages, beets, onions, beans, peas, &c., from the gardens of Messrs. Douw, Rathbone, Passenger, Mayell, and Newcomb. Very handsome collections of flowers were shown by Messrs. Douw, Rathbone, Menand, Wilson, Newcomb, Jaynes, J. S. Goold, Mayell, Dorr, and others.

PENNSYLVANIA HORTICULTURAL SOCIETY.—The stated meeting of this society, for the month of July was held in the Chinese Saloon Philadelphia, on the evening of the 15th. The president in the chair.

The display on the occasion was unusually fine, the most attractive part of which was the luscious fruit, which consisted of grapes from the President's houses, composed of seven dishes. The finest varieties were the Muscat of Alexandria, White Sweet Water and St. Peter—some ten dishes of Apricots, the finest of which were the Royal, Moorpark and Peche varieties from the garden of Mrs. J. B. Smith, the Moorpark from the grounds of Wm. V. Pettit, James Dundas, Robert Johnson and Isaac B. Baxter. Plums of the Mirabelle variety from Wm. Foster and Alex. Parker. Pears from A. M. Eastwick's, the Jargonelle

and Little Muscat; Early Catherine, etc. from Miss Gratz's; Nectarines two varieties from John Lambert's; very large Gooseberries from Mrs. J. B. Smith and Isaac B. Baxter. Figs from Wm. Johns. Apples, the Red Juneating from A. M. Eastwick's. Ten varieties of seedling Raspberries by our indefatigable member Dr. W. D. Brinckle. Currants—fine red and white from Miss Gratz's; red, from Mrs. N. W. Roe, and black from John Lambert's gardens. A specimen of the Colong cherry from Jno. R. Brinckle—an interesting dwarf variety indigenous to the Rocky mountains.

The collections of plants in pots from Robert Buist's, John Lambert's John Sherwood's, A. M. Eastwick's gardens contained many specimens of interest. Among Mr. Sherwood's were a dozen different varieties of that graceful genus the Fuchsia. A table by Edward Delevan, gardener, contained twelve varieties of Achimenes, a number of which were entirely new and beautiful. Seedling Carnations by Matthew Mills and Joseph Mevius. Beautiful bouquets and a basket formed of indigenous flowers by Robert Kilvington; basket of exotic flowers by H. A. Dreer, hand bouquets by Jno. Gallagher and others.

The three tables of vegetables by Thomas Wrigaines' gardener, by Miss Gratz's and John Lambert's, did them credit.

A specimen of wheat some seven feet in height, from Col. Holman's farm, Chester Co., was shown, and considered so prolific that the crop was estimated at 50 bushels to the acre.

THO. P. JAMES, Rec. Sec.

OSWEGO HORT. SOCIETY.—As Secretary of the Oswego Horticultural Society, I am requested to give you some account of our doings. At the annual meeting in January last, the following officers were chosen for the ensuing year.

President—A. P. GRANT.

Vice Presidents—P. S. Slocum, C. S. Phelps, S. Worden, W. Newkirk, and C. Trowbridge.

Cor. Secretary—J. W. P. Allen.

Rec. Secretary—J. M. Casey.

Librarian—C. Severance.

Treasurer—S. H. Lathrop.

Executive Committee—G. W. Burt, J. L. McWhorter, G. Mollison, Geo. Seeley, J. W. Judson.

The Ex. Committee have prepared a list of premiums, for the year, on a pretty liberal scale, amounting to $200 and upwards. Three exhibitions are proposed to be given: the first was held on the 2d inst., at the City Hall. A report of the proceedings is enclosed. The exhibition room was very appropriately decorated under the supervision of a committee of ladies. The display of flowers was very fine, and evinced much taste and skill, not only in the culture of rare kinds, but in their arrangement on the exhibition tables. For particulars, see the report of the committee on that subject which is enclosed. The show of fruits was very creditable, especially of strawberries which were in great perfection, and all the choice varieties were on the table. I very much regret that the report does not give the names of all the varieties, and further, that the committee on fruits, in the discharge of their duty, have not named a single sort for which a premium was awarded. Of those which came under my observation, Hovey's seedling and Methven's scarlet were the finest *looking*;—not having tasted, I am unable to speak of their *flavor*, but should consider them well worthy a premium. There were also some choice Alpines and Hautbois.

The season was not sufficiently advanced for our best cherries,—the only kinds in perfection being the Mayduke, Elton and American Heart. A premium for the best cherry (the Elton) was awarded to Mr. Barnard, and deservedly too. Mr. Wörden had as usual a large collection of the best sorts,—among them the Elton, American Heart, Black Tartarian and Downton. Mrs. L. B. Crocker presented the Napoleon Bigarreau, Graffion and other fine varieties.

At the close of the exhibition the articles were sold. The society numbers about 250 members whose contributions, added to the proceeds of the fairs amount to a very respectable sum, which is disbursed in premiums and books, thus encouraging competition, diffusing knowledge, and promoting a taste for horticultural pursuits.

Our next exhibition is to be held in September, when our peaches and pears will be in season—the crop of which promises to be very abundant. Many of the orchards planted within the last five or six years begin to yield a re-

turn to the proprietor for his outlay of money and time. The city and town of Oswego must, this year, have a very large surplus of the finest apples for export; and of peaches, a sufficiency to meet the home demand. There is a prospect too, that the demand for choice pears will be measurably supplied. I notice in many places, arrangements for the culture of the Isabella and Catawba grape, on a pretty extensive scale—and the crop must be a large one. I trust our citizens will not neglect the cultivation of these varieties, yielding, as they do, liberal and sure returns for a small amount of labor and space. Yours, &c. J. M. Casey, Rec. Sec. Oswego Hort. Society.

The Berkshire Hort. Society held its first meeting for the exhibition of fruits and flowers, at Lee, on the 3d of July. Present E. Williams, Esq., Vice-President, in the chair.

The exhibition of flowers surpassed that of any former period, for the corresponding months, and the display of fruit, though limited to strawberries, (cherries, in consequence of the lateness of the season, not being in maturity,) was enough to tempt any one to exclaim in favor of their cultivation.

The first premium on strawberries was given to William G. Backus, of Pittsfield, $2; and the second to Edward Pomeroy, of Pittsfield, $1. Mrs. Hon. Wm. Porter, of Lee, exhibited more than 30 varieties of the Rose, beautifully arranged in tasteful pyramids. These roses were roses, none of your half formed, stinted productions, such as are too often seen among the grass and weed plots of those who "don't care nothin about flowers! 'taint no profit to raise em." In form, they were nearly perfect; in shade, rich; in variety, forming agreeable contrasts. Mrs. Porter received the first premium, $1. Mrs. G. W. Platner, of Lee, a large and rich variety, 2d premium, Breck's Book of Flowers. Mrs. Sarah L. Clark, of Richmond, 3d premium, Bridgeman's Florist's Guide. The first premium on Perpetual Roses, to Edward Pomeroy, Pittsfield, $1. Second premium to Mrs. Curtis, of Stockbridge, Breck's Book of flowers.

. On cut flowers, to Mrs. Chamberlain, of Lee, $1. Mrs. George Hull, of Sandisfield, Breck's Book of Flowers. Mrs. Adams of Stockbridge, Bridgman's Florist's Guide. A spirited and talented address was given by Hon. H. W. Bishop, of Lenox.

The next exhibition will be held at Pittsfield, on the first Wednesday of August. W. Bacon, Secretary. *Richmond, July* 7, 1851.

Mass. Hort. Society.—At the meeting of July 12th, the following fruits were exhibited.

Fruits. From James Hyde & Son, Cherries—probably Bigarreau Noir.

From Marshall P. Wilder, Cherries—Seedling, Bigarreau Noir tardiff, Bigarreau Noir, Downer's Late Red, superior.

From Winship & Co., Cherries—Bigarreau Noir, (?) Downers Late Red.

From Jonathan Mann, Cherries—unnamed, probably Elkhorn; Raspberries.

From Cheever Newhall, Raspberries—Knevet's Giant.

From Azell Bowditch, Raspberries—Knevet's Giant; Grapes—Black Hamburgh, and Black St. Peters.

From Samuel Sweetzer, Raspberries—Knevet's Giant.

From J. W. Foster, Raspberries—Knevet's Giant, fine.

From Breck & Co., Grapes—Black Hamburgh, fine; White Chasselas.

From Messrs. Hyde, Cherries—Hyde's New black seedling.

From E. C. Grant, Strawberries—Newland's Alpine and Monthly Alpine; Raspberries—Knevet's Giant.

From H. B. Stanwood, Cherries—Downer's Late Led, very fine.

From Otis Johnson, Cherries—Sweet Montmorenci, Florence, Black Eagle, superior; Napoleon Bigarreau, fine, and seedling.

From George Walsh, Cherries—Seedling No. 1, 2 and 3, fine.

From J. F. Allen, Grapes—Garden Tokay and Black Hamburgh; White Hamburgh, very fine; Cannon Hall, superior; White Frongtignan, very fine. Peaches—Late Crawford, extra size, superior; Tippecanoe, New-Jersey, Gros. Mignonne, Old Mixon. Nectarines—Violet Hatif. and Boston.

From J. P. Cushing, Esq., Grapes—Black Hamburgh, very fine; Syrian Bunch, extra size; Muscat of Alexandria, very fine; White Frontignan, superior. Melons—Beachwood and Persian, both very fine.

From William Batchelder, Cherries—Downer's Late Red?

From Galen Merriam, Cherries—Downer's Late Red? very fine.

From Josiah Lovett, 2d, Cherries, Spachaus, Honey Hearts. Raspberries—Knevet's Giant, superior.

From Henry Vandine, Cherries—Elkhorn, very fine.

From Hovey & Co., Figs, Black Fig of St. Michaels. Cherries—Black Eagle, very fine; seedling; Monstreuse de Bavay, and one un-

named. Grapes—Gros Bleu; Victoria, very fine, and Muscat of Alexandria.

From J. S. Sleeper, Cherries—Seedling.

For the committee. J. S. Cabot, Ch'n.

School of Design, for Women.—While there is so much of mere speculation about the "rights" of the sexes, it is gratifying to find now and then, something actually done in the right direction. From the following account, by Mrs. Bateham, the School of Design established for women, in Philadelphia, seems to us to have more value in it than a dozen conventions. Give the women of America who have talent and industry, an interesting and intellectual occupation, and we shall find the *wrongs* rapidly dipappearing. In the instinctive faculty of taste, many women are largely gifted, and such schools of design as this would not only give employment to thousands—but elevate and refine their whole social life. Ed.

Philadelphia School of Design for Women.—This truly benevolent institution is a branch of the "Franklin Institute for the promotion of the Mechanic Arts," at Philadelphia, and its design is to furnish woman another source of maintenance by preparing her to enter upon the lucrative business of engraving, designing, &c. It was commenced in November, 1848, by Mrs. Peter, whose benevolent heart had been pained for years, by seeing so large and increasing a number of deserving women, exposed to deprivation and suffering, for want of a wider scope in which to exercise their abilities for the maintenance of themselves and their children. After long deliberation, she selected this department of industry, not only because it presents a wide and almost unoccupied field in our country, but because these arts can be practiced *at home*, without materially interfering with the routine of domestic duty.

For two years she taught private classes in her own dwelling, and being greatly encouraged by her success, in March, 1850, she presented the cause to the managers of the Franklin Institute, who reported favorably, and it was taken under their patronage.

The committee on instruction having had referred to it, by the Board of Managers, the project of Mrs. Peter for the establishment of a School of Design for women, reported as follows:

It cannot be a matter of doubt even to the most careless observer among us, that there is, in our city, a great want of ways in which female industry may be profitably employed; and that this evil is increasing is evident from the yearly accession to the demands upon our public and private charities for the support of women and their families, who apply for such relief with the greatest reluctance, and would cheerfully earn for themselves if the means of profitably employing their labor were counted out to them. In the severe commercial crises which affect our country from time to time, many families are suddenly reduced from comfort and even affluence to poverty, and the evil alluded to is much increased since no small share of this suffering falls upon widows and single women.

The person, therefore, who points out a new field for the employment of female industry, must be looked upon as a public benefactor; and any mode by which such a field may be rendered accessible to necessitous women, recommends itself strongly to society as a powerful agent in the advancement of our civilization, and the relief of suffering.

It is, however, very desirable that whatever mode may be devised for the employment of female industry, should be of such a nature as to allow it to be exercised at their own homes, or at least without crowding them together in work-shops; and especially without forcing them into contact with the opposite sex—practices which are too frequently destructive to female delicacy, (a quality not less valuable to the community than beautiful in itself) even when they do not lead to habits of actual immorality.

Now, one of the distinguishing peculiarities of the female sex, whether it be an intrinsic difference in their intellectual nature from that of man, or only the result of a difference of education, and a habit of close observation, is the very general possession by them of a more refined and correct taste, and a power of delicate discrimination, especially in regard to the effects of form and color—effects which strike almost every one among us, but which few, except women, are able to analyze and produce at will. Heretofore little, if any attention has been paid to the cultivation of this peculiar faculty; and even in our most elaborate systems of female instruction, it appears to be considered as very subordinate in importance to other branches less fitted to the peculiar capacities of their minds.

On the other hand, amidst the very rapid advances which we have made in manufacturing, it must be admitted that our improvement in the arts of design has been by no means commensurate with other successes; and, while the quality of our materials, and the cheapness of their production are enabling us gradually to exclude foreign productions from our market, we are still compelled to depend almost entirely upon foreigners for our designs and patterns; thus exhibiting ourselves rather in the light of successful imitators of others, than as original inventors. Thus the designs of our articles of furniture, and the patterns of our dresses and other stuffs, are rarely anything more than servile imitations of those imported from France and England, which the different habits of life among us, as well as the different climate of our country, render more or less inappropriate to our use, while the ex-

istence of this state of things must necessarily render us tributary, and in so far inferior to foreign nations.

This is another matter well worthy of the attention of our community; and if, by any means, we shall succeed in freeing our manufacturing industry from this slavery, which is a defect and reproach upon it, we shall certainly have made another important step forward in our career as a producing nation.

The plan which has been submitted to the Institute, and upon which the committee is called to report, appears calculated to diminish or destroy both these great evils, by providing a school in which young women may receive a competent education in the arts of design, and their various applications to manufactures, thus furnishishing them with a heretofore unoccupied branch of industry, for which by their very natures, they are peculiarly fitted, and by which they may sustain themselves by their own labor, while at the same time they give to our other arts that stamp of originality and nationality in which they are now in so great a degree deficient.

The successful establishment of such a school would, moreover, fit them for employment in many arts, such as woodcutting and engraving, for which their quick perceptions of form, and their delicacy of hand very especially fit them; while even should they, in these and similar branches of labor, finally supplant men entirely, no evil could occur, especially in a country like ours, where such broad fields for male labor, lie entirely unoccupied.

Your committee therefore think that the project is deserving of the warmest approbation of the Franklin Institute, and respectfully recommend the Board of Managers to adopt the following resolutions:

Resolved, That the project submitted by Mrs. PETER for the establishment of a school of design for women, as tending to furnish women with a large field for the exercise of their talents and industry, and to increase their usefulness to society, is, in the opinion of the Franklin Institute, worthy of the highest commendation, and if successfully carried out, cannot but be of great value to the community.

By order of the Com. J. F. FRAZER, Ch'n.

May 15, 1850.

The school has now been in successful operation about a year, and the present number of pupils is about 65. Mrs. ANNE STILL, the head teacher, is quite enthusiastic in her devotion to the cause, and is admirably adapted to fill the post she does, if we may judge from the handiwork of her pupils.

The pupils are principally engaged in devising and sketching patterns or designs for calicos, delains, oil-cloths, carpets, wall paper, table covers, hearth rugs, &c., though a large number are engaged in wood engraving, for magazines, and cuts representing machinery, &c., in sculpture, and indeed in designing, coloring or staining, painting, enameling, burnishing or carving household goods and utensils of every description, mouldings and carvings, and nearly every article of use or ornament. The terms of admission are talent and skill suitable to some of the departments of labor, a determination to make the knowledge here obtained, *useful* to themselves or others, and a small tuition fee of $4 per quarter, or if unable to pay this, simply an entrance fee of $2.

As soon as the knowledge of drawing is acquired, the pupil, if skillful, can commence to earn rapidly, while at the same time improving herself. The occupation is so light and delicate, and so lucrative, that with skill, a young woman can seldom, if ever, do so well for herself in any other way. We are rejoiced to see such a school opened and sustained, for it will accomplish much for women, and we hope a very few years more will find such an institution in our own state. But I have neither time nor room remaining to speak now of the Female Medical College, so it must be for another No.

Answers to Correspondents.

STOCKS FOR ROSES.—*J. S. D.*, (Elkton, Ky.) The most experienced cultivators look upon the Manettii Rose stock, as the best of all stocks for perpetual Roses. It not only grows readily from cuttings, takes to bud easily, and very seldom throws out a sucker, but being allied to the China Rose, it promotes the free blooming of Perpetuals worked upon it. The stock generally used for standard roses is the sweet brier, native to the road sides. We do not know what species of oxalis you refer to, but they all require a rich sandy soil, and plenty of sun light, if you wish them to bloom freely.

RASPBERRIES.—*An Amateur*, (Brooklyn, N. Y.) The best way to raise seedlings of the raspberry, is the following: Wash the seeds free from the pulp as soon as the berries are perfectly ripe. Take one or more wooden boxes, constructed about 6 inches deep, 2 feet wide and 3 feet long: fill them with rich sandy loam, to within an inch of the top. Sow the seeds in the soil about a fourth of an inch deep, pressing the mould down firmly, and watering it after sowing the seeds. The boxes should then be placed in a shady situation, on the north side of a fence or building—plunged up to the rims in tan-bark or coal-ashes, and watered regularly every evening, so long as the dry weather continues. When the winter sets in, cover them two inches deep with leaves. Uncover them in spring. The seeds will come up in April, and when the plants are two inches

high, transplant them, (during wet weather,) into a favorable place in the garden. You may succeed in making the seeds vegetate by planting them in the open garden—but you will not probably, get half the number in this way that you will with the boxes. The strawberry may be treated in the same manner.

Tyro, (New London, Ct.) The rose leaves which you have sent us, and of which only the skeleton remains, (the covering of the leaf having been entirely eaten up,) have been devoured by the *rose slug*. If you wish to get rid of this pest, which as you say destroys all the beauty of the queen of garden flowers, you must commence next year, early in the season —as soon as the rose buds begins to show the first faint signs of the color of the flower, and syringe the foliage on the under side, with tobacco water. This, repeated two or three times, at intervals of four or five days, will effectually destroy the rose slug while it is in the state of a small green fly.

Hot water Apparatus.—*W. Field.* We recommend you to apply to Hogg & Benton, engineers, 136 Crosby street, New-York. They devote their attention especially to heating green-houses and buildings in this way, and can ensure you the best and latest improvements.

Cedar of Lebanon.—*M. Martin.* The largest sized plants that we have heard of for sale are at Hancock's nursery, Burlington, N. J. A deep sandy loam suits this tree best.

Chrysanthemums.—*A Lady,* (Pittsburgh.) You may have nice dwarf plants of these by bending down the long shoots of the old stock plants, and fastening them to the ground with *pegs* at a distance of 4 or 5 inches from the end of the shoot. In a few days this end of the shoot will again take an upright position. Then sink a flower pot filled with rich mould under the bend of the shoot and make a layer of it. It will soon send out plenty of roots into the pot —after which you can cut off the connection with the mother plant, and your young plant will bloom finely at about a foot high.

Wintering bedding out Plants.—*A. W. M.,* (New-Bedford.) You fail in wintering Verbenas in your cool green-house mainly because your plants are so young that they damp off Cuttings of Verbenas, Scarlet Geraniums, &c., should be made *now*, as speedily as possible, so that they may form abundant roots, and the plants become strong with well ripened shoots before winter. The same remarks apply to Maurandias, Cobeas and other half hardy climbers.

Apricot trees.—*B. Johnson,* (New-York.) The cracking disease of the trunk and decline of your trees is owing to their having suffered in the bark from the great alternations of temperature in winter. Wind the stems of your sound trees about with straw ropes and you will avoid the same result in them.

Carnations.—*B. J.* In order that the layers should root freely, you must water the ground every morning in dry weather—and if you can cover it with moss or short grass as a mulcher it will promote greatly the formation of roots.

Peach trees.—*Junius,* (Princeton, N. J.) From the account you give of the difficulty of raising good peaches in your soil as compared with twenty years ago we should say your soil is exhausted of the proper food for the tree, to restore it prepare large holes for a new plantation of peach trees, by trenching the soil two feet deep and mixing with it a heavy dressing of leached wood ashes and stable manure. If we were to add another hint it would be to send to a distance and get a new stock of the best varieties.

Drawing Plants.—*A Young Gardener,* (Charleston, S. C.) The best possible way for you to learn drawing "by yourself," is to procure "Chapman's Drawing Book," which may be had, no doubt, in Charleston, or at any rate ordered through any bookseller there, as it is published in New-York. This work is accompanied by a copy-drawing book, in which all the needful elementary practice is put before the beginner in the most comprehensible form.

Climbers.—*A. P.,* (Northampton, Mass.) The difference between the Virginia Creeper, (or *Ampilopsis,*) a harmless plant, and the poison sumac, or Mercury vine, (*Rhus toxicodendron,*) which somewhat resemble each other, as you, say, is, that the former has five leaflets in a cluster, and the latter only three. They both cling to stone-walls by the little rootlets sent out from the stem.

Study of Trees in Park Scenery.